

BUSINESS WEEK

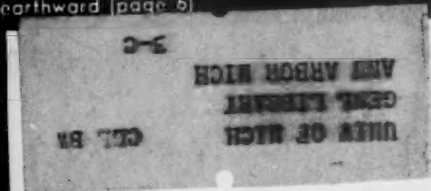
JAN. 10, 1948

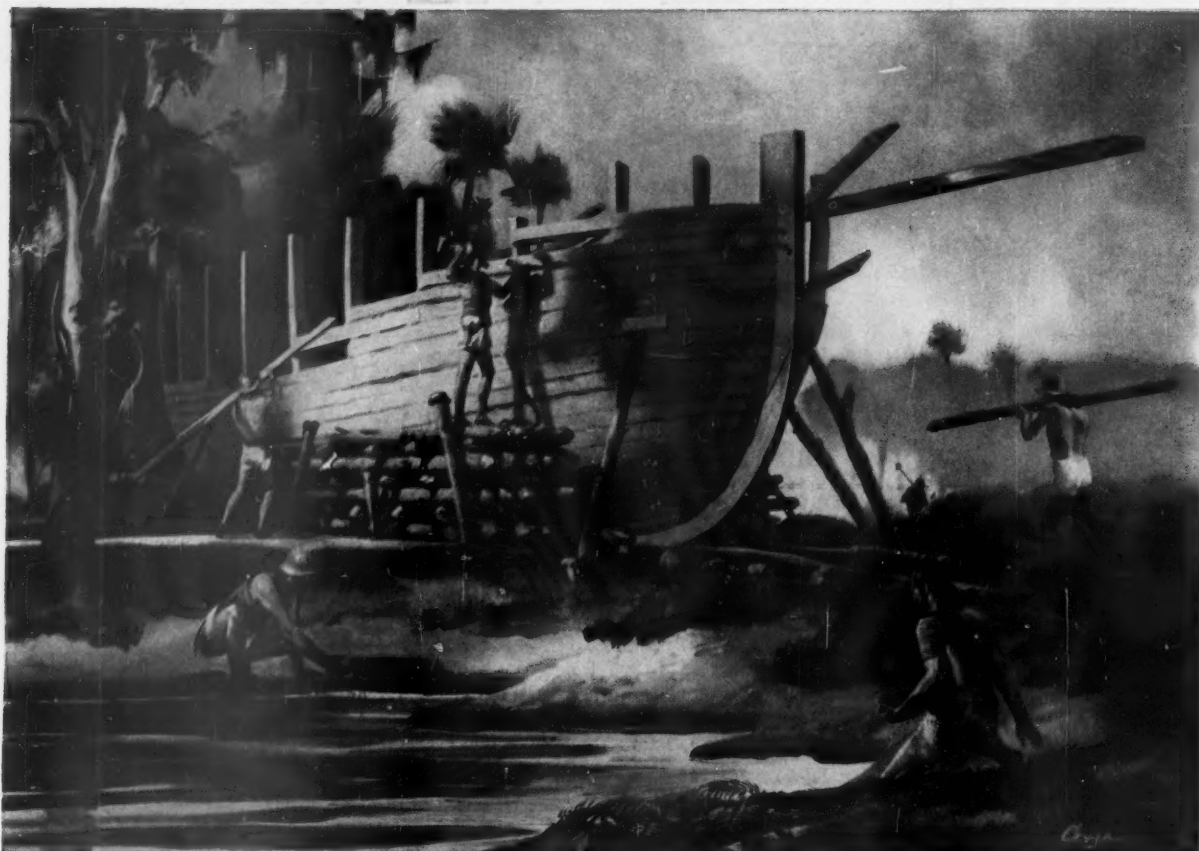


Lawrence D. Brill: An aviation pioneer casts an anchor earthward (page 6)

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A MCGRAW HILL PUBLICATION





The Cavalcade of Oil

NUMBER ONE OF A SERIES

DESOTO'S explorers calking ships with residue from oil seepage at Sabine Pass near High Island on the Texas Coastline in 1543—the first use of petroleum in the Western Hemisphere.

The genesis of the myriad uses of petroleum in the modern era of civilization dates from the early sixteenth century when "New World" explorers along the Gulf Coast obtained the residue from oil seepages with which to calk their ships. Kindred use of crude petroleum dates back to antiquity by Biblical reference which describes the ark of Noah as having been "pitched without and within with substances taken from the rock crevices of the earth."



The universal volume production of petroleum and petroleum products in the twentieth century constitutes the greatest single contribution to world economy made by any modern industry. Further petroleum industry developments for the future bid for even greater economic benefits to mankind. Hughes—proud of its part in the progress of the petroleum industry—is ever cognizant of the responsibility attached to its position in the field as "WORLD STANDARD OF THE INDUSTRY!"



HUGHES TOOL COMPANY
HOUSTON, TEXAS

WORLD STANDARD OF THE INDUSTRY



THE STIRRING CASE OF THE AGITATED CHEESE

There was a time when stirring, or paddling, the huge vats of cheese curds and other ingredients was considered a back-breaking necessity in the art of making fine cheese. Because of the painstaking care involved in this process, so important in the final product, hand power was slow in being replaced by mechanical process.

It was not until a manufacturer found that he could duplicate the careful hand stirring with an ingenious motor-powered agitator, that a new era in the cheese making industry was begun. Of course, dependable, efficient Wagner Motors were used to power the first of these devices, helping to mechanize another time-taking food making process. And you never noticed the difference in your cheese!

Should you need motors, or any other products made by Wagner, consult the nearest of our 29 branch offices or write to Wagner Electric Corporation, 6460 Plymouth Ave., St. Louis 14, Mo., U. S. A.



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Electric Corporation
EST. 1891

ELECTRIC MOTORS • TRANSFORMERS
INDUSTRIAL BRAKES
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For 7 Good Reasons Fleets Specify Lindsay Bodies

- 1 **EASE OF REPAIR**
A Lindsay body can be repaired quickly—damaged panels easily removed—replacements available from warehouse stocks.
- 2 **NATIONWIDE SERVICE**
There are 207 authorized Lindsay Body Builders, thus, you can get complete factory service on any Lindsay body any place in the country. Your branch offices can also buy new bodies locally and know that they conform to your standard specifications.
- 3 **SPEED OF DELIVERY**
Lindsay bodies—one or a hundred—are built in record time. This modern method of assembly is ideal for line production.
- 4 **STRENGTH AND SAFETY**
LS has an amazingly high strength-weight ratio. Your Lindsay body withstands wear—saves weight, increases payload.
- 5 **APPEARANCE**
The rugged beauty of LS is adaptable to your individual design requirements.
- 6 **UNIFORMITY**
Units in your fleet can be identical yet built in entirely different parts of the country.
- 7 **EXPERIENCE**
Lindsay bodies stand the test of actual service. The strongest and most frequently heard reason given for the purchase of Lindsay bodies last year was—"We've used them before." Let us tell you all about Lindsay bodies.



"Jim," a neighbor of yours, was chosen an LS Body Builder because of his ability to handle your requirements intelligently—whether you need one or a thousand truck bodies.

Your "Jim" can design a body to meet your exact requirements—make speedy deliveries and a quick factory repair job.

The Lindsay Corporation, 1728 25th Ave., Melrose Park, Ill.
Sales Offices: Chicago, New York, Atlanta, San Francisco.



LS bodies in Borden's Poinsettia fleet by Fyfe Body Works, Tampa, Florida.



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LS bodies in Kahn's Furniture Co. fleet built by Philadelphia Truck Body Co., Philadelphia, Pennsylvania.



LS bodies in Columbia Baking Co. fleet built by Murphy Body Works, Wilson, North Carolina.



LS bodies in Wilson & Co. fleet built by Hercules Body Co., Evansville, Indiana.



LS bodies in General Baking Co. fleet built by Diehl & Sons, Inc., Richmond Hill, New York.



LS bodies in Christie's Bread, Ltd., fleet built by Wilson Motor Bodies, Ltd.

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BUSINESS WEEK • Jan. 10, 1948

1947



"Was that a Busy Year!"

We completed the largest construction program in our history—more than twice as large as any pre-war year.

A billion dollars was put into new facilities for the expansion and improvement of your telephone service.

2,700,000 new telephones were added to the Bell System—more than 10,000 every working day.

13,000,000 more calls a day were handled—a new record.

The telephone story of 1947 is one of expanding business, extraordinary building of new facilities, rising costs and higher payrolls.

It is the story of unceasing effort to meet the continuing demands for more and better telephone service.

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Why crowd out your profits

with **SPACE-HOGGING INSULATION?**

More room for merchandise . . .

Less room for "over-stuffed" insulation . . .

That's what Santocel, the chemical insulation means. Thicknesses of wall or doors of all refrigerating equipment can be cut in half with Santocel. The space saved is money in the pocket every day for commercial refrigerating users.

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SANTOCEL
saves space

This seal means
"the world's most efficient insulation"



In frozen food display cases, Santocel can mean 20% to 60% more storage capacity in the same floor space. That's more room for greater variety of products . . . more room for fast moving items . . . and more sales appeals for equipment makers.

Santocel: Registered trade name for Monsanto's silica aerogel. Not to be confused with moisture absorbing silica gel.



SERVING INDUSTRY . . . WHICH SERVES MANKIND

THE COVER

Lawrence D. Bell started building planes a few years after the Wright brothers got their rickety contraption into the air. He has been building them ever since.

• **Down to Earth**—Aircraft construction is still the major interest of Bell and his Bell Aircraft Corp., at Niagara Falls, N. Y. But these postwar days are lean ones for a company that tries to stay airborne. So Bell has been doing many such earthbound jobs as making engines for rotary plows, stampings for juke boxes, and variety of other subcontracting tasks.

This week Bell announced its major move in this policy of diversifying earthward; it brought out a powered wheelbarrow, which it calls a Prime Mover (page 39). Those who are familiar with Larry Bell's aviation pioneering aren't surprised that he chose to pioneer on the ground, too.

• **Early Bird**—Bell caught the air bug from his brother Grover, an early exhibition pilot, when he was a high school boy in Santa Monica, Calif. He was 18 in 1912 when he helped Grover as a mechanic. Two years later he was superintendent of the Glenn L. Martin plant at Los Angeles. That same year Bell hired for Martin the first engineer an aircraft company ever had—Donald W. Douglas, now head of Douglas Aircraft Co. Bell later became general manager of the Martin company, and then of Consolidated Aircraft Corp.

In 1935 Bell and two other Consolidated executives, Ray Whitman and Robert Woods, left Consolidated to form their own company. They had ideas about a fighter plane. The company scraped up some money, and started off in a corner of the sprawling American Radiator plant in Buffalo. Kept going by subcontracts, Bell Aircraft planned a twin-engine fighter, the Airacuda. It took the air in 1937. When war came Bell was ready with the smaller, faster Airacobra, which served on many fronts as the P-39.

The young company grew up fast during the war. At the peak in 1944, it had 50,000 workers employed in five plants.

• **Postwar Jobs**—Since the war, Bell has had several experimental projects for the government. Its biggest aircraft job, however, has been the helicopter. This work started in 1941; in the last two years it has grown into commercial production (BW—Jan. 25 '47, p. 21).

But Larry Bell has been in the business long enough to know that aircraft development seldom pays off overnight—at least in peacetime. He's betting that the Prime Mover will bridge this gap between pioneering and profits.

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EVEN TREES ARE WEARING NYLON

Pitching a tent over a tree is a tall order, especially when it's repeated throughout a citrus grove. But it must be done to fumigate scale and other insect pests. A new tent made of Du Pont nylon fibers helps to make this job much easier!

The nylon tent weighs only 70 pounds against 140 to 195 pounds for tents of fabrics formerly used. It's much easier to drag the nylon tent from tree to tree and to erect it. The lighter weight, combined with nylon's naturally smooth surface, also makes it easier to remove the tent from the tree.

Ordinarily, fumigating tents soak up a good deal of moisture from the trees and air. As the work progresses, tents become heavier to handle, resulting in extra labor strain. The nylon fabric picks up less

moisture . . . dries faster. It provides an extra margin of ease in handling that fumigating crews find is a distinct advantage.

Experience to date on nylon tents indicates they will last much longer. They are tear-resistant . . . do not deteriorate from mildew. And fabric porosity can be controlled, so that the tents better retain the fumigating gas.

New booklet, "Nylon Textile Fibers in Industry," may suggest a way in which you can advantageously use Du Pont nylon in a product you are making—or planning to make. Write today for your copy. Simply send request on your company letterhead to Nylon Division, Room 6509, E. I. du Pont de Nemours & Co. (Inc.), Wilmington 98, Delaware.

*Perhaps YOU can
profit from the properties of
DU PONT NYLON FIBERS*

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BETTER THINGS FOR BETTER LIVING
...THROUGH CHEMISTRY

For nylon . . . for rayon . . . for fibers to come . . . look to Du Pont



Fabricated Micarta

OPENS THE DOOR TO SAVINGS LIKE THESE

INVESTIGATE!

Westinghouse offers nationwide application and engineering service on Micarta, based on 25 years of experience and research in industrial plastics. A few of its many proved applications include:

Marine Industry—main propulsion bearings, pintle bushings, switchboard panels.

Steel Industry—roll-neck bearings, run-out tables, punch rolls.

Aviation Industry—pulleys, antenna masts, fair-leads.

Automobile Industry—timing gears.

Electrical Industry—refrigerator inner-door panels, insulators, breaker strips, radio cabinets.

For more information, write or phone your nearest Westinghouse office.

Here is just one example of many ways that Micarta—the strong, light-weight, corrosion-resistant industrial plastic—is helping manufacturers produce faster, better, cheaper.

For a refrigerator manufacturer, the application of Micarta for inner door liners brought these outstanding results: *number of pieces required for door assembly reduced from 10 to 3; thermal efficiency improved up to 5%; usable space within the cabinet increased by 15%; product appearance improved.*

The door liner is formed, painted and completely fabricated by Westinghouse—shipped ready to install—effecting important savings in assembly time on the finished product.

This ability of the Westinghouse Micarta Division to handle a complete fabricating job—from blueprints to finished product—may open the door to time and cost savings in your particular field. You benefit through the use of the most modern mass production techniques—plus 25 years of research and experience in applying the right grade of Micarta in the right way.

Booklet B-3884 shows the scope of Westinghouse Micarta facilities, and ways in which they are being used to advantage by many industries. For a copy, write Westinghouse Electric Corporation, Department T, Post Office Box 868, Pittsburgh 30, Pennsylvania.

J-85006



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PLANTS IN 25 CITIES . . . OFFICES EVERYWHERE
MORE PRODUCTIVE POWER FOR INDUSTRY



BUSINESS OUTLOOK

BUSINESS WEEK
JANUARY 10, 1948



Inventory fears have just about vanished from the business scene.

Retailers pretty well cleaned their shelves in the Christmas rush (page 19). They are more worried about restocking than about clearances.

Wholesalers have more goods than a year ago. But recently the rise in value of inventory has been slight. Higher prices rather than unit volume account for most, if not all, the increase since summer.

Manufacturers have inventories valued at about 20% more than a year ago—but sales are also up 20%.

This is pretty comfortable. There's just one trouble: Inventories that look hardly adequate today may be crushing tomorrow. All you need is (1) a slide in prices, or (2) a business dip.

•
This is a durable goods boom; employment figures show that.

Manufacturing is providing more jobs than ever before in history. The gain over the 1939 average, in fact, is about 57%.

But the gains within manufacturing lines vary widely. Employment in durable goods plants is 82% over 1939, nondurables only 38%.

In November, manufacturers of durables were providing 7,984,000 jobs. Factories turning out nondurables had 7,867,000 wage and salary workers. That's quite a change from before the war.

In 1939, average employment in nondurables was 5,720,000; in durable goods, only 4,357,000.

•
Employment in construction is in its seasonal decline now, but it's expected to reach the highest level since 1942 next summer.

Peak for 1947 was just over 1.9-million working for construction contractors. Top next summer is expected to be 2.1-million or more.

At the crest of wartime housing and plant expansion, construction jobs totaled nearly 2.6-million. Peak in 1939: barely 1.3-million.

•
Forecasts on home building in 1948 are hazardous, but here's the guess of a group that should have some inside dope—manufacturers of materials.

The Producers' Council expects the number of "starts" this year to total 870,000 dwelling units. That compares with some 860,000 in 1947.

Of course, high prices might prevent some of those starts. But one thing is certain: Completions in 1948 will about equal starts in 1947.

•
Pressures are building up under steel prices.

This week it is higher scrap markets. Last week, it was the freight rate increase which mills must absorb under their usual price policy.

And those aren't all, of course. Iron Age points out that these additional factors may enter the picture:

Higher steel wages: A moderate boost is virtually certain.

Higher iron ore costs: These look probable.

Higher coal costs: They'll come if miners get another wage increase.

Now that the steel mills' buying strike seems to have failed to take the steam out of scrap markets, higher steel prices are moving closer.

•
Higher freight rates may one day result in shorter hauls.

Industries that absorb freight on their products, such as steel and

BUSINESS OUTLOOK (Continued)

BUSINESS WEEK

JANUARY 10, 1948

cement, sooner or later may find that they just can't afford to sell customers any distance from their doors (BW-Nov.22'47,p9). In fact, this already is the case to some extent in steel.

Short hauls have no great appeal to railroaders. The traffic manager's dream is every car full to the roof and going the route.

Wartime conditions fulfilled that dream. And 1947 traffic figures offer an interesting contrast.

The railroads loaded more freight cars than ever before last year—2½% more even than in 1944, biggest war year. But the cars weren't so full nor did they go so far. Result: Ton-miles were 12% below 1944.

Ton-miles, nevertheless, broke all peacetime records.

Stockholders, far from reveling in splashy dividends, these days often find their checks a reminder of the high cost of doing business.

Take the case of American Can Co. Sales and earnings were up in 1947. But the dividend going out Feb. 16 will be the usual 75¢.

That earnings justified more is the clear implication of remarks made after the directors' meeting by M. J. Sullivan, chairman. Plant modernization and expansion, delayed by the war, now costs much more in terms of both labor and materials involved.

Besides, there is the cost of inventory necessary to postwar volume.

Biggest year in history is faced by the sugar trade in 1948.

That is the promise held by quota of the 7.8-million tons set for this year by Secretary of Agriculture Clinton Anderson under the new sugar law. The allotment tops even the peacetime year of 1941, when 7,350,000 tons were used.

Even so, the new quota is depressing prices. Producers see a surplus. Cuba figures in terms of a 6-million-ton crop, second only to last year's record-breaker. The island, doubting that Europe would take its share due to currency shortages, had hoped the U. S. would think in terms of 8-million-ton consumption.

Returning as a factor in the sugar industry are the Philippine Islands. This week it was announced that the Binalbagan-Isabela sugar central will resume full operations this year, first central to do so.

The Philippines will have a 850,000-ton slice of the U. S. market, about the same as prewar, when their industry gets back on its feet.

At present, Cuba supplies deficiencies in the Philippine quota.

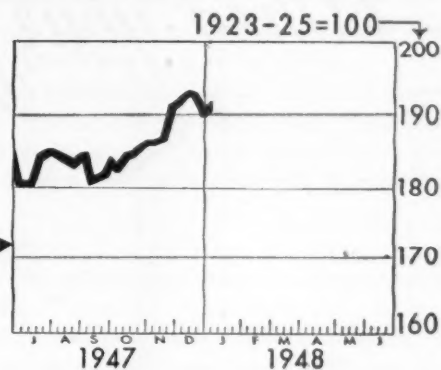
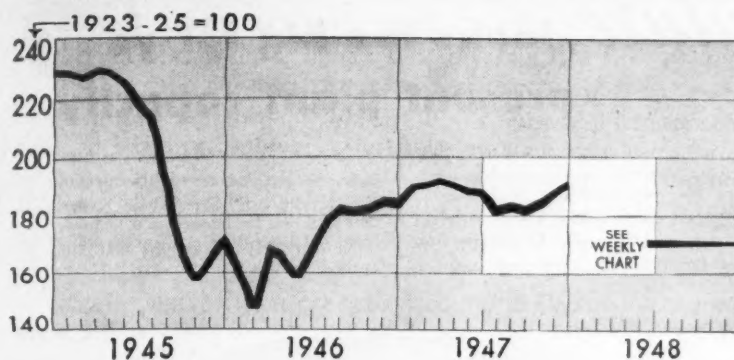
Eggless Thursday was dropped without anyone caring much—despite all official protests to the contrary.

Fact is, Washington may have to support egg prices any day now. The price was only 3 points above the 90% of parity guarantee on Dec. 15—and the period of peak egg production is just ahead.

Sporting goods, long in limited supply, will be much easier to get this year. Take the word of A. G. Spalding Bros. for that. The company expects soon to be able to stop allocating to dealers.

Not only that. It is looking for increased competition and believes that buyers soon will be shopping for prices they like.

FIGURES OF THE WEEK



Business Week Index (above)

Latest Week	Preceding Week	Month Ago	Year Ago	1941 Average
*191.7	190.7	192.7	189.0	162.2

PRODUCTION

Steel ingot operations (% of capacity)	97.9	96.4	97.7	90.3	97.3
Production of automobiles and trucks	74,092	†75,638	110,759	53,437	98,236
Engineering const. awards (Eng. News-Rec. 4-week daily av. in thousands)	\$15,172	\$15,624	\$22,929	\$12,994	\$19,433
Electric power output (million kilowatt-hours)	4,868	4,830	5,218	4,574	3,130
Crude oil (daily average, 1,000 bbls.)	5,291	†5,285	5,265	4,649	3,842
Bituminous coal (daily average, 1,000 tons)	1,668	†2,197	2,394	1,902	1,685

TRADE

Miscellaneous and L.C.L. carloadings (daily average, 1,000 cars)	84	84	89	81	86
All other carloadings (daily average, 1,000 cars)	56	55	61	57	52
Money in circulation (millions)	\$28,971	\$29,111	\$28,817	\$28,952	\$9,613
Department store sales (change from same week of preceding year)	+27%	+8%	+10%	+77%	+17%
Business failures (Dun & Bradstreet, number)	58	38	60	30	228

PRICES (Average for the week)

Spot commodity index (Moody's, Dec. 31, 1931=100)	450.1	†458.2	454.8	376.0	198.1
Industrial raw materials (U. S. Bureau of Labor Statistics, Aug., 1939=100)	288.6	†295.9	292.1	266.2	138.5
Domestic farm products (U. S. Bureau of Labor Statistics, Aug., 1939=100)	415.9	†416.7	410.3	308.7	146.6
Finished steel composite (Steel, ton)	\$78.05	\$76.32	\$76.09	\$69.18	\$56.73
Scrap steel composite (Iron Age, ton)	\$40.00	\$40.00	\$40.25	\$31.00	\$19.48
Copper (electrolytic, Connecticut Valley, lb.)	21.500e	21.500e	21.500e	19.500e	12.022e
Wheat (Kansas City, bu.)	\$2.95	†\$3.00	\$3.04	\$2.05	\$0.99
†Sugar (raw, delivered New York, lb.)	6.32e	6.32e	6.32e	5.57e	3.38e
Cotton (middling, ten designated markets, lb.)	35.50e	†35.84e	35.85e	33.32e	13.94e
Wool tops (New York, lb.)	\$1.880	\$1.890	\$1.840	\$1.588	\$1.281
Rubber (ribbed smoked sheets, New York, lb.)	22.81e	†22.69e	20.25e	22.50e	22.16e

FINANCE

90 stocks, price index (Standard & Poor's Corp.)	120.8	†120.4	117.2	121.7	78.0
Medium grade corporate bond yield (30 Baa issues, Moody's)	3.55%	3.56%	3.50%	3.15%	4.33%
High grade corporate bond yield (30 Aaa issues, Moody's)	2.87%	2.90%	2.85%	2.59%	2.77%
Call loans renewal rate, N. Y. Stock Exchange (daily average)	1½%	1½%	1½-1½%	1½-1½%	1.00%
Prime commercial paper, 4-to-6 months, N. Y. City (prevailing rate)	1½%	1½%	1½%	1%	1-1½%

BANKING (Millions of dollars)

Demand deposits adjusted, reporting member banks	48,685	48,877	48,247	46,582	††27,777
Total loans and investments, reporting member banks	64,816	65,305	65,027	64,454	††32,309
Commercial and agricultural loans, reporting member banks	14,658	14,719	14,358	11,346	††6,963
Securities loans, reporting member banks	1,674	1,935	1,864	2,727	††1,038
U. S. gov't and gov't guaranteed obligations held, reporting member banks	37,227	37,366	37,560	41,053	††15,999
Other securities held, reporting member banks	4,260	4,217	4,238	3,984	††4,303
Excess reserves, all member banks	1,590	1,070	880	562	5,290
Total federal reserve credit outstanding	23,382	23,011	22,830	24,093	2,265

*Preliminary, week ended January 3rd.

‡Ceiling fixed by government.

§Date for "Latest Week" on each series on request.

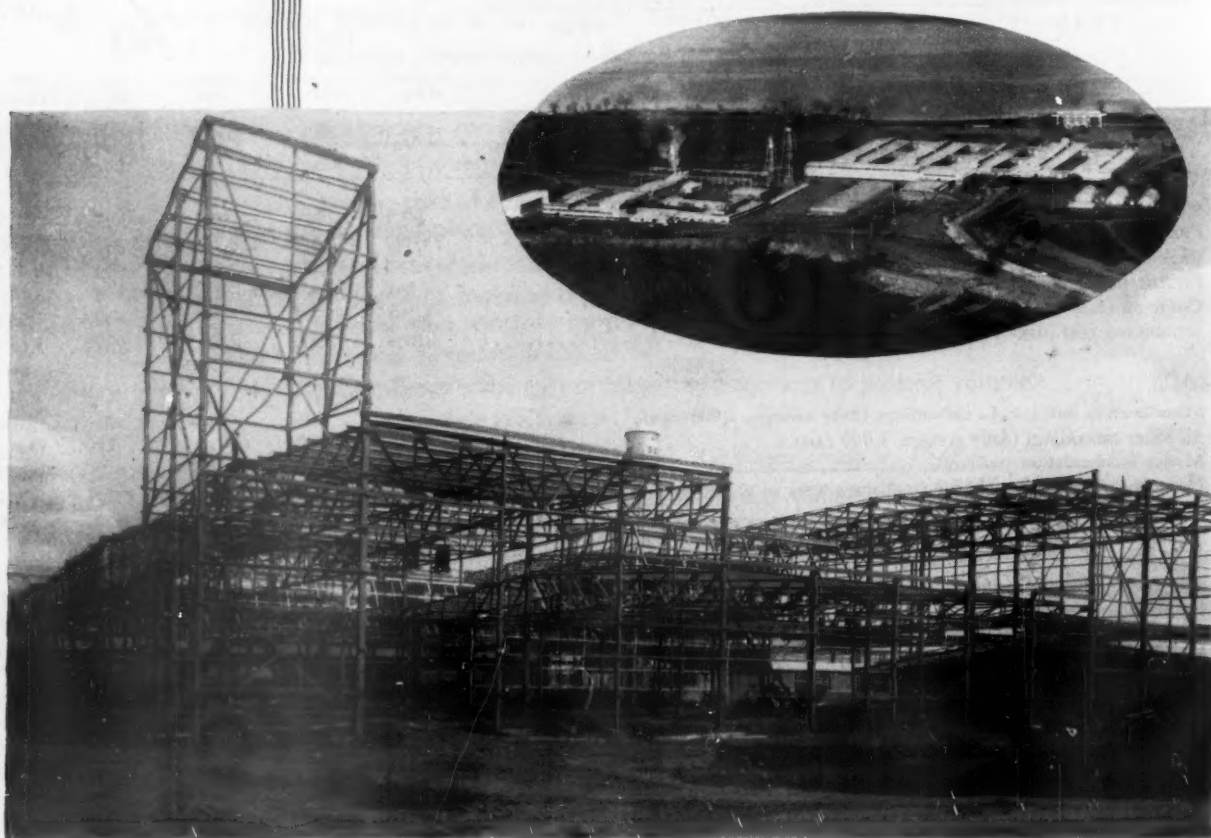
†Revised.

††Estimate (B.W.—Jul. 12 '47, p16).

When your future looks too big for your present plant capacity

... the Allied technical staff is at your elbow, all set for consultation or estimating your structural steel requirements. If your specifications are already on paper, send them to us for quotation on the fabricated structural steel work.

We have fabricated and erected the structural steel for many industrial plants, large and small; for public buildings and port facilities; for hangars and highway bridges. We shall be glad to assist you in the same way.



(Construction progress photos courtesy of the John Deere Dubuque Tractor Company, Dubuque, Iowa)



3 PLANTS

Working as one huge operation
to get your Structural Steel
Fabricated and Erected

- PLANTS: • CLINTON BRIDGE WORKS, Clinton, Iowa
• GAGE STRUCTURAL STEEL CO., Chicago, Ill.
• MIDLAND STRUCTURAL STEEL CO., Cicero, Ill.

WASHINGTON OUTLOOK



MARSHALL WILL QUIT if the Republicans in Congress seriously mutilate the European Recovery Program.

He feels that strongly about ERP. It must go through, and in a reasonably workable form.

This determination in the Secretary's mind may prove to be the Administration's ace in the hole to ward off the developing revolt within G. O. P. ranks.

State Dept. officials are convinced that if Congress seems ready to cut the plan, Marshall will put it to the G. O. P. leaders, bluntly and privately: "I won't stay and take responsibility for what you are doing. I'll quit—and tell the public why."

That would be a threat impossible to ignore.

Today it's delay, more than mutilation, of ERP that scares U. S. foreign-policy makers.

To them the Apr. 1 deadline for completing congressional action is a real deadline. Here's why:

(1) Interim aid to France and Italy runs out in March; these governments cannot survive without continuing U. S. aid.

(2) British dollar resources will hit rock bottom at about the same time; financial stability of the entire sterling area could crumble any time after that.

But Congress is in no mood to be rushed. House Foreign Affairs Chairman Eaton thinks he will be doing well to get a bill through by June. Even Vandenberg—Marshall's chief hope on Capitol Hill—concedes that the Apr. 1 deadline won't be met.

Truman's concession to Vandenberg—dropping the definite \$17-billion four-year total from the ERP bill—doesn't eliminate much controversy.

The specific figure meant little anyway; it's based on last year's prices and next year's weather.

The real issue is still there: a one-year or a four-year commitment. Taft points this up; he's still a one-year man, he says.

TAFT AND VANDENBERG are heading for an open break. It will come during debate on the Marshall Plan; they have split on both its duration and its scope.

Domestic legislation will feel the effect of this cleavage in top G. O. P. ranks.

Ever since the Republicans took control of Congress, Vandenberg has gone along with Taft on

domestic issues, has felt entitled to speak for the party on foreign affairs.

Now he is irritated by what he considers brash speeches by Taft on the Marshall Plan. Freshmen G. O. P. senators, chafing under Taft's rule, are beginning to hope they may soon get a powerful recruit.

Taft's ERP stand can hurt his presidential chances, too.

Many Republicans aren't happy over the way newspapers headlined last week's two big speeches: Taft and Wallace Oppose ERP.

THE WAY TO SAVE STEEL is to cut down on exports to Europe. That's the conclusion of the Senate committee headed by Pennsylvania's Ed Martin, which has been poking into steel supply for nearly a year.

Eleven percent of steel output is too much to export, the committee feels.

And Europe, rather than South America, is the place to cut. The South American demand is permanent; Europe will be self-sufficient in four years, will then be competing for the Latin American market.

Administration proponents of a major expansion in steel capacity—who found a forum last year in the committee's hearings—get no comfort from its conclusions.

The committee will castigate the industry for unfair distribution of steel; will recommend an FTC inquiry into discrimination, purchase of small plants, withdrawal from traditional markets.

But on the heated issue—expansion—the committee accepts the industry's line: There's little to be gained now by building more plant.

TRUMAN IS OFF THE HOOK on the vote-catching subject of taxes. His State-of-the-Union message to Congress accomplished this.

It's the second time he has nimbly outfoxed the G. O. P. in pre-election maneuvering.

Truman's call for price control and rationing last November put the Republicans on the price hook; they're still trying to figure out how to convince the voters they aren't to blame for high prices.

Now he has robbed the G. O. P. of much of the political benefit of cutting taxes. Come election

WASHINGTON OUTLOOK (Continued)

time, Truman can tell millions of taxpayers—the low-income ones: My \$40-cost-of-living tax credit would have given you more than you're getting from the G. O. P.

Republicans already sourly charge Truman with contributing to inflation: "He's putting a \$40 floor under the price of votes."

That's the politics of it.

But businessmen can forget about any \$3.2-billion increase in corporate tax levies. Republicans reject Truman's contention that new revenues must be found to match each cut.

Speaker Martin is going right ahead with his plan to ram the Knutson bill through the House by the end of January. Senate action will be slower.

Republicans are convinced that husband-wife income-splitting and higher personal exemptions will enable them to override a veto this time.

The rest of Truman's state-of-the-union message was aimed at next November, too.

His three-times-underscored assertion that the Marshall Plan "leads to peace—not war" was his response to Wallace; it broke the Democratic tactical decision to ignore the third-party threat.

Truman's reiteration of his opposition to the Taft-Hartley act was his special appeal to labor; it fell short of the explicit demand for repeal which labor wanted—but not far short.

For the rest, Truman warmed over his September, 1945, program of social welfare, civil rights, and resources development. It's about as good now as it was then—and it'll be about as good again next January, if he has a chance to use it.

Republicans have no use for Truman's brand of social legislation; on the subjects that interest them they have bills of their own. And few even of these will go through this year (BW-Jan.3'47, p15).

On inflation, too, it still looks like no drastic congressional action.

But Senate G. O. P. leaders are getting a little disturbed over the restiveness among rank-and-file party members. It shows up on meat rationing: The Flanders bill, authorizing Agriculture to get ready for rationing if Congress chooses to O. K. it later on, has a chance in the upper chamber.

But House leaders are still dead set against controls. Martin and Halleck have convinced

themselves that prices will be on the downgrade by Election Day. So they see no need to get excited

DON'T BE SURPRISED if a federal conciliator drops in on you some morning and asks: How are things going with you and your union?

Like firemen checking on fire hazards, Cy Ching's men soon may spend their spare time—if they have any—checking up on touchy labor situations before they break out into a strike.

Ching got the idea from Taft-Hartley act language saying government should seek avoidance of labor disputes, as well as settle them. He talked it over with labor and management men in Boston, New York, and Cleveland.

This week regional conciliators were put to work drafting a plan. Ching hopes to have it ready for the first meeting of his National Labor-Management Panel.

A TIN-CAN ORDER (BW-Dec.6'47,p36) is being held up while government men smooth the ruffled feathers of food canners.

Their trade association had told them the revision in tin-conservation regulations would affect only beer (cut to 50% of present tin use); coffee (restricted to blackplate); and pet foods (blackplate for can ends).

A few hours before the new order was due out, the industry's Washington man stumbled on a copy. He found it also eliminated some off-size food cans, cut tin coating allowed on cans for some foods.

Result: a week of talk between government and industry people.

Outcome: the order to be issued about as written.

- Reminder: If you do business with SEC, the address now is Washington 25, D. C. . . .
- If Eisenhower decides to make a serious bid for the presidency, he will want Gen. Bedell Smith, his wartime deputy, close at hand. So insiders are watching for any hint that Smith is quitting as Ambassador to Moscow, retiring from the Army. . . .
- Lead, freed from wartime controls only last summer, is another metal slated for semivoluntary allocation controls under the Taft anti-inflation law. . . .
- Insiders at CAB are astonished at the amount and temper of mail being received by Jim Landis, fired by Truman as CAB chairman Jan. 1. They blame bankers with airline investments, not airline officials themselves, for Landis' ouster.



PARADE of shoppers—in New York and elsewhere—brought a parade of Christmas sales

Retailers Ride Buying Wave

Christmas business hit new high in dollar volume, with dip in unit sales and luxury items only weak spots; merchandisers are in healthy inventory position, do little price-cutting.

Delighted retailers were adding up the score on Christmas business this week. The more they look at the result, the better they like it.

Christmas sales in 1947 broke all previous records. They probably were 12% or more above 1946 volume. In every part of the country they ran far better than early expectations. And in most cases they topped even the later and more optimistic estimates (BW—Dec. 13'47, p26).

• **Good News**—This is good news, not only for retailers, but for all business. Many a business boom has died on the retail counter. A lag in sales kicks back promptly on production and employment in the factories that supply the goods. The fact that sales were still going strong this Christmas after two full years of postwar prosperity means that no such threat is yet visible.

In this respect business seems to

stand on firmer ground now than it did a year ago. In 1946, Christmas sales also set new records, but toward the end they dragged a trifle. The start of 1947 found stores with unbalanced inventories and embarrassingly large stocks of some items. It was close to the middle of the year before the retailing picture cleared up and sales began booming again.

• **Inventories in Line**—This year most stores are in comfortable shape on inventory. Their stocks are just about in line with current sales. Few departments have any more on hand than they like. And there's not much money tied up in slow-moving items or second-rate merchandise. The stores cleaned all that out last year.

As a result, post-Christmas sales this year will be mostly for promotional purposes, not for drastic housecleaning. Price cuts will be modest. The amount of merchandise offered in special sales

will be small. Some stores are even having trouble finding goods to mark down for their customary January sales.

• **Sales Picture**—Figures for 1947 on all retailing are not ready yet. But the Federal Reserve Board's index of department store sales gives a fair picture of how Christmas sales stacked up in 1947. If anything, department store figures understate the total gain in sales. Mail-order houses and chains increased their share of total business during 1947. And many independent hard-goods outlets—for instance, automobile dealers—showed much better than average gains (BW—Jan. 3'48, p9).

According to the Reserve Board index, department store sales for the four weeks ended Dec. 27 were 11% above 1946. For the year they were up about 9%.

• **Increase Nationwide**—All parts of the country shared in the sales increase.

New York showed the smallest gain for the Christmas season. It was up only 7% in December, even though its big snowstorm was mercifully delayed until Dec. 26 when the Christmas buying was over. Philadelphia rang up the biggest gains—15% for December, and 12% for the year.

In Chicago (up 13% over December, 1946), one big State St. store says that Christmas sales came out just about where it expected. Another reports that volume ran bigger than it had forecast. Both stores will hold their usual January sales, but they are making only small markdowns compared with pre-war. They are planning no special sales because they have nothing that they think needs marking down.

In Cleveland (up 13%), stores say that almost everything worked out about the way they had calculated in advance. But there were one or two unpleasant surprises. Radio sales took a licking when a new television station opened three weeks before Christmas. Retailers think the video publicity kept many potential buyers from tying up money in costly radios. Furs and furniture also moved more slowly than a year ago.

On the West Coast, it's the same story. Most retailers found sales running ahead of anticipation. After the Christmas rush inventories were fairly well balanced and just about right for size, most store managers thought. Some stores even feel that they are understocked now and are trying energetically to lay hold of more goods.

• **Unit Sales Down**—All these estimates are in dollar volume, of course. And that is something that bothers old-timers in retailing. Unit sales—the physical

volume of goods moving across the counter—have been losing ground.

So far the drop in unit sales hasn't been large. In most lines during 1947, physical volume was not more than a couple of percentage points below 1946. But a decline in unit sales at a time when dollar sales are rising is a traditional danger signal in retailing. It means that high prices are squeezing consumption.

• **Sore Spots**—There are one or two other things that keep the retailing picture from being a study in rose tints:

One is the bad showing that some of the luxury lines made during the Christmas season. Most stores say that their cosmetic business went to pot in comparison with 1946. Many report that costume jewelry did not pull out of its 1946 slump as well as they had hoped. This also is a sign that the consumer is feeling the pressure of higher prices. He still is spending money, but he is putting it into more or less essential items.

Another sore spot with retailers is their profit record for 1947. Larger sales did not bring larger earnings. Instead, net for the year may run 20% to 30% under 1946. Part of this drop reflects markdowns last year to clear out slow-moving inventory. But most of it results from steadily rising costs of operation.

• **1948 Plans**—In their planning for 1948, most stores have assumed that sales will keep on gaining, at least for the first six months. They see no promise of price cuts any time soon. Hence few of them will stop buying as they did a year ago when they were looking for a drop.

But at the same time, the stores know that the bottom could drop out all at once. If that happens, they don't want to be caught with overloaded shelves and long commitments.

• **One Viewpoint**—One New York retailer sketches the picture this way: "A year ago, all the smart operators got out of the market and the dumb blankety-blanks bought everything they could get. Then, when sales picked up, the dumb blankety-blanks made a killing and the smart operators could hardly get enough to stay in business. That won't happen again. Your smart retailer is buying now—but not in such hefty spurts that his inventory becomes unwieldy. And if trouble starts, he will be ready to get out in a hurry."

K-F. SEEKS NEW MONEY

Kaiser-Frazer Corp. will make its third excursion into the new-issues market within the next few weeks. The auto industry's newest major manufacturer this week filed a registration statement with the Securities & Exchange



AFTERMATH of a record Christmas; after a lot of shopping, a lot of junk. In Richmond, Va., a huge dump truck disgorges the dismal remains of once-bright gift packages

Commission for 1.5-million shares of common stock.

Proceeds of the issue will go mostly for new capital equipment to boost the company's capacity to turn out cars; the goal is 1,500 a day compared with present output of 1,000 a day.

Price at which the new \$1-par stock will be offered will be announced later. The first public issue of 1.7-million shares was offered Sept. 27, 1945, at \$10 a share (BW-Oct.6'45,p76); the second, 1.8-million shares, on Jan. 23, 1946, at \$20.25 (BW-Feb.2'46,p70). Last Tuesday, just before the announcement of the new issue, the closing price was \$14.25. The announcement depressed the market for the stock; on Wednesday morning it opened at \$13.625, and during the day sold as low as \$13.375.

The company currently is in the best financial position in its short history. Net income for 1947 is estimated at \$19-million; that's almost enough to wipe out the net deficit of \$20.1-million piled up while the company was getting started (BW-May10'47,p72).

FOUNDRY BRANCHES OUT

To broaden its operations as a supplier of metalworking tools, American Steel Foundries, Chicago, last week took over King Machine Tool Co., Cincinnati.

The foundries firm has been making hydraulic presses and other hydraulic machinery since it acquired Elmes

Engineering Works, Chicago, five years ago. Customers for such machinery in many instances are the same as those who buy tools of the type produced by King.

Business of the King Co. will be operated as a division of American Steel Foundries.

Oak Ridge Switch

Atomic Energy Commission decides to let Carbide & Carbon instead of Chicago U. operate the Clinton Laboratory.

The Atomic Energy Commission has switched signals for the second time this year on its plans for the Clinton Laboratory at Oak Ridge, Tenn. The commission announced last week it has arranged to turn over operation of the laboratory to Carbide & Carbon Chemicals Corp. (Carbide & Carbon—a subsidiary of Union Carbide & Carbon Corp.—already operates the two plants at Oak Ridge that produce U-235.)

• **Monsanto Out**—Last fall Monsanto Chemical Co. decided to quit operating Clinton (BW-Oct.4'47,p46). At that time, the plan called for Chicago University to take over operation of Clinton from Monsanto at the beginning of this month.

A change in operating policy for Clinton brought the decision to have

Carbon & Carbide take over instead. The laboratory is now to concentrate on applied research in chemical and chemical-engineering problems. Pile-design projects are being moved to the Argonne National Laboratory at Chicago.

• **Change Completed**—The shift in program at Clinton climaxes a trend that has been evident ever since AEC succeeded the Army's Manhattan District. During its postwar period of operation, the Army had set up Clinton as a pile-work center. Work was started at that time on a demonstration pile—the so-called Daniels pile—for production of electric power.

Under AEC, Argonne has been built up as the center for pile research; power production problems have been assigned to G.E.'s Knolls Laboratory; work on the Daniels pile has been dropped. Clin-

ton's new concentration on chemical problems completes the process.

• **Atomic Use Key**—The chemical knowledge that Clinton will be seeking is one of the main keys to practical application of atomic energy. Uranium placed in an operating atomic pile is gradually transmuted into an intensely radioactive mixture. This includes uranium, plutonium, and a multitude of fission products.

In the wartime plant at Hanford, Wash., the plutonium was extracted in very complicated processes. Everything else was piled up for later attention. This produced bombs, but it was terribly wasteful.

• **Problem**—The problem before the Clinton chemists is to find simple and effective ways of separating the whole mixture.

consin's trouble was a water shortage. The peak load season is over. For the next six months demands on power companies will drop off.

And by the end of 1948, U. S. power companies count on rows of new generators to give them a higher reserve margin.

SEC O.K.'s Financing Plan for Pipeline

Financial arrangements for building a natural gas pipeline to serve Detroit and Milwaukee got a Securities & Exchange Commission O.K. last week. The 1,500-mile line, running from Texas, will cost \$104-million.

• **The Deal**—Under the financing plan, two one-time holding company subsidiaries of the now dead United Light & Power System will be completely split apart. They are American Light & Traction Co. and United Light & Railways Co. The United System was dissolved four years ago under the holding company death sentence law.

United Light & Railways owns a little more than half American's outstanding stock, common and preferred. It will: (1) sell the preferred to American, which will also offer to buy the rest of its preferred in the hands of the public; and (2) use part of the common to pay dividends to its own stockholders, offer the remainder to its stockholders for purchase. It will get rid of all the stock of American it owns by the end of 1948.

• **Selling Stock**—American will continue as a holding company. Its principal properties: Michigan-Wisconsin Pipe Line Co. (organized to build and operate the new pipeline), Michigan Consolidated Gas Co. (serving the Detroit area), Milwaukee Gas Light Co. (doing the same in Milwaukee), and Milwaukee Solvay Coke Co.

American will get rid of its 20% common stock interest in Detroit Edison Co., and will distribute its holdings of Madison (Wis.) Gas & Electric Co. stock to its own shareholders.

• **Financing**—To finance the pipeline, Michigan-Wisconsin will issue \$25-million common stock to American. It will sell to the public \$50-million in bonds, \$10-million in serial notes, and \$14-million in preferred stock.

The 24-inch pipeline is scheduled to start operating in 1950, will be in full operation in 1952.

Only one legal barrier remains. Pan-handle Eastern Pipeline Co. supplies natural gas to Detroit under a contract running through 1951. It has long opposed the new pipeline plan. Now, it has appealed to the courts from the Federal Power Commission order of a year ago authorizing the new line. This appeal is still up for decision.

Utilities Over the Hump

Edison Electric Institute survey shows power companies met and served record demand in late December. And, except for users who agreed to power cuts, nobody did without.

Throughout last fall industry heard ominous predictions that a serious electric power shortage would crop up during the peak-demand period late in December. Many utilities took steps to forestall the threat (BW-Sep.16'47, p15). But one trade source was optimistic. The Edison Electric Institute, trade association for the utilities, stuck by its galvanometers, maintained that it could see no such shock looming.

Last week, E.E.I. was pointing with pride to the accuracy of its predictions. For on the eve of 1948 it was able to report that the electric power industry had successfully met the highest peak of demand in its history.

• **Survey**—To arrive at this conclusion, E.E.I., just after Christmas, surveyed U. S. power systems. The survey covered 50-million kw. of the nation's 52.3-million kw. of central-station generating capacity. When all the reports were in, E.E.I. found that the electric industry had carried a peak load of 49.5-million kw. This meant that there had been a reserve capacity of 5%.

E.E.I. admitted that some users had their service curtailed. But they were only a "small handful," and they had agreed to such an arrangement. Only about 48,500 kw. were curtailed in this way at the demand peak—less than one-tenth of 1% of the total output. At the same time another 98,000 kw. of interruptible power was cut off. But this is normal practice. Customers under such contracts have agreed to this—in return for lower rates.

• **Results**—By regions, the E.E.I. survey showed:

New England was hit because of water shortages. Some 1,500 kw. were curtailed; voltage was reduced by an amount equal to 20,000 kw.

Middle Atlantic: no curtailment.

Central Industrial: 23,000 kw. were curtailed; voltage was reduced 20,000 kw.

Southeast: no curtailment.

West Central: some 3,000 kw. were curtailed.

Southwest: no curtailment.

Mountain: some 9,000 kw. curtailed.

Pacific Northwest: 12,000 kw. shifted to off peak hours.

Pacific Southwest: no curtailment.

• **Dilemma in Wisconsin**—The institute had barely spoken when its critics pounced on a piece of news from Wisconsin: The Wisconsin Public Service Commission issued a standby order allowing the Wisconsin Public Service Corp. and a subsidiary to ration power when they felt it was necessary. The authority hasn't yet been used. But it permits:

(1) Cutting show window, sign, marquee, and similar lighting by 50%.

(2) Requiring industrial users to spread out work, thus reducing peak loads.

(3) Cutting off power for intentional violation.

(4) Cutting voltage by no more than 5%.

(5) Interrupting circuits (after warning) for no more than two hours at one time.

(6) Operating all-night street-lighting circuits only.

• **Peak Is Past**—Actually, E.E.I.'s critics had little cause to chortle. Wis-

Shirt Shortage?

U. S. mills want government to import extra long-staple cotton from Egypt to head off pinch in sheets, shirts, thread.

This week it looked as though shirts and sheets may be harder to get by summer. To stave off a shortage, U. S. cotton mills are trying to get more high-quality, long-staple cotton from Egypt.

The Egyptian 91,000-bale quota for the year ending September, 1948, was filled a few days after it was opened last fall. And there isn't enough medium and long-staple fiber from the domestic '47 cotton crop to meet the anticipated demand.

• **Spring Pinch?**—The crisis isn't immediate, however. But some mills that aren't so well-fixed may be feeling the pinch as early as March or April.

To avoid a shortage of shutdown proportions, the Cotton Textile Institute has asked the Tariff Commission to let in more of the long-staple fiber from Egypt, which has plenty. The

Tariff Commission hasn't acted yet. But it will announce that it's decided to investigate the problem, and will set a date for public hearings.

• **Mills See Shortage**—The case put forward by the cotton mills is that if 1948 duplicates the record consumption of the industry last year, there'll be a shortage of 600,000 bales of cotton fibers $1\frac{1}{8}$ in. long and longer, and a shortage of 500,000 bales of fibers $1\frac{1}{4}$ in. long.

It's this cotton that's needed to turn out high quality fabrics for shirts, handkerchiefs, blouses, fine dress goods, sewing thread, etc.

• **Shortage Factors**—The impending shortage stems from:

(1) The fact that a year ago, there wasn't much "premium" in the premium price that long staple fiber brought the growers. In December, 1946, premium on 14-in. delta cotton, for instance, was about 6¢ per lb. This, said the cotton farmers, wasn't enough to make it worthwhile to grow the long-staple variety, which actually costs more to produce. Meanwhile regular lengths were bringing excellent prices. So acreage planted to long-staple varieties last year dropped off.

(2) On top of this reduction in acre-

age, there was extra dry weather last year in the Mississippi, Arkansas, and Louisiana areas where most U. S. long-staple varieties are grown. So the acreages that were planted just didn't get enough water to put the valuable extra fractions of an inch on the fiber.

• **Result**—There were only about 145,000 bales of long staple ($1\frac{1}{8}$ in. and longer) produced from the '47 total cotton crop of almost 11.4-million bales. Crop plus carryover last month brought the total domestic supply of long staple to about 440,000 bales, compared with 767,000 bales in 1946.

Disappearance through domestic use, exports, and otherwise of long-staple last year was 489,000 bales. This is about what the mills would like to bring in this year from Egypt—plus a similarly large quantity of medium-length fibers.

The cotton mills went through the same routine in '46. Then the problem was the extra-long staple fibers— $1\frac{1}{4}$ in. long. They managed to get an extra quota of about 46,000 bales from Egypt over and above the regular 91,000-bale quota.

• **Double Squeeze**—Dept. of Agriculture and the Administration are caught in this pinch, too. Southern cotton growers are dead set against imports of cotton. They say the current situation serves the mills right:

If they hadn't let the price of long-staple fiber go so low in '46, there wouldn't have been the reduced acreage in '47, and the mills wouldn't be squeezed so hard in '48.

• **Premium Gravy**—The growers also know that heavy imports from Egypt will knock some of the creamy head off the present premium for long staple. Cotton that commanded only 6¢-a-lb. premium a year ago now brings 13.5¢-a-lb. premium.

That's the story Dept. of Agriculture hears from the cotton growers. The mills also bring their story to Agriculture, knowing that whatever is done, Agriculture has a big say in it.

• **Up to Tariff Commission**—Actually, Tariff Commission has the job of deciding whether to act on the situation. This is what the commission is almost sure to do within the next few weeks.

The procedure calls for open hearings at which the industry—and the Dept. of Agriculture—put their case on the record. After that, Tariff Commission makes a recommendation to the President—which he can accept or reject. If he accepts, he issues a proclamation—and that's that.

• **President's Course**—Naturally, when he gets the Tariff Commission's findings, the President will take counsel with the Secretary of Agriculture, as well as other White House advisers.

Usually good guessers say when the thing comes to a showdown, the Egyptian cotton quota will be raised.



Du Pont Rolls Its Own to Market

Last week for the first time in over 20 years tank cars carrying du Pont tetraethyl lead antiknock compounds bypassed Ethyl Corp. on the way to oil refineries. E. I. du Pont de Nemours & Co. has long been making Ethyl fluid for Ethyl Corp. Ethyl's last basic patent, covering use of the fluid's antiknock value in engines, expired last month (BW—Oct. 12 '46, p19). With it died the du Pont-Ethyl agreement. Ethyl will continue to

make and sell its own fluid. But du Pont is now on its own as a distributor. To handle the new venture—aimed at refineries only—du Pont has opened five sales offices.

Expanded research is also on the du Pont docket. There are two new general plants—a road-test laboratory at El Monte, Calif., and a new engineering laboratory at Deepwater Point, N. J. Other new district laboratories will act as service centers for refiners.



TROUBLE in Holy Land menaces oil flow from Middle East to Mediterranean ports

U. S. Oil Problem in Palestine

Arabs harass work on Tapline in retaliation for U. N. partition; action endangers other pipeline projects across Holy Land that tap Middle East petroleum basin.

The United Nations' partition of Palestine is playing hob with the oil interests of the United States in the Middle East.

• **Mad at U. S.**—The Arabs blame the U. S. in great part for the partition. Aroused tribesmen in Trans-Jordan, Syria, and Lebanon are taking out their anger on the nearest available Americans. As a result, work on the U. S.-backed Tapline has been seriously interrupted.

This 1,040-mile pipeline is being built by the Trans-Arabian Pipe Line Co. It will run from the Persian Gulf oil fields of the Arabian American Oil Co. to Sidon on the Lebanon coast (map).

So far there has been no trouble along the 800-odd miles of the route lying in Saudi Arabia—thanks to iron-fisted Ibn Saud, who is still friendly with U. S. oil interests. And work on the terminal facilities at Sidon has gone on without a hitch.

• **Trouble Sector**—It's the 200 or more miles from the Trans-Jordan border to the sea that are giving Tapline its headache. Trouble boiled up there right after the news of partition. Resentful Arabs wrecked two Tapline offices. For safety's sake, the company began pulling its American personnel out of the camps situated along the pipeline right-of-way.

So far Arabian American Oil Co. officials in this country have kept a discreet silence. Other U. S. oil men are taking the optimistic view that the trouble will soon blow over. However, there is no indication that Tapline has made any move to send its crews back into the interior. And to fog matters even further, the Syrian government is still withholding a final O. K. on Tapline's right-of-way.

• **Outcome Important**—The outcome of the explosive events in the Middle East is vital to both the United States and Europe. For within the area lies approximately half of the globe's proved reserves of crude oil. This means significantly, that:

(1) The Middle East could supply the oil that is needed for rebuilding and expanding Western Europe's industries.

(2) Shift of distribution patterns would ease the drain on dwindling oil reserves in the Americas:

• **Present Output Small**—Oil output from the Middle East is still relatively small. During 1947 it was 830,000 bbl. a day as against some 5-million bbl. a day in the U. S. But it is expanding as rapidly as manpower, materials, and political conditions will permit. New oil fields are being discovered. Latest of these is Arabian American's Buqqa field in Saudi Arabia, with probable re-

serves estimated at 2-billion bbl. and a possibility of twice that. (By comparison, new pools in the U. S. discovered during 1946 added less than 245-million bbl. to proved reserves.)

The Middle East's present refining capacity is about 730,000 bbl. daily. It will be enlarged along with the increase in output, but not on the same scale. The greater portion of the new output of crude will move directly to European refineries.

• **Key Is Transportation**—The key to Middle East oil is transportation. Much of the oil lies close to the Persian Gulf. This means a 3,650-mile tanker haul around the Arabian Peninsula, through the Suez, into the Mediterranean. Pipelines can cut the distance down to 1,000 miles or less, slash the cost of hauling oil by two-thirds.

At present the only pipeline outlets to the Mediterranean are those operated by Iraq Petroleum Co. This company has two lines originating at Kirkuk. One runs to Haifa, the other to Tripoli. Each is a 12-in. line about 650 miles long. Their combined capacity is 96,000 bbl. daily.

• **Major Projects**—But U. S. and foreign oil companies have four new major pipeline projects either under way or planned:

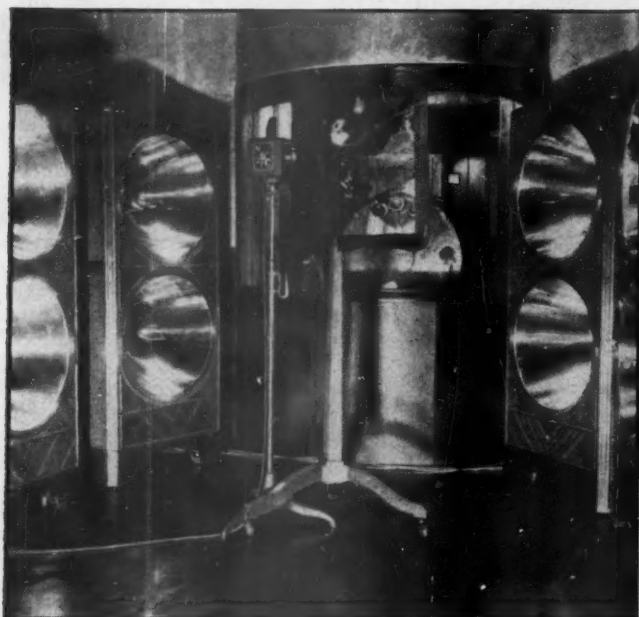
(1) Iraq Petroleum (in which Standard Oil of New Jersey and Socony-Vacuum jointly hold a 23.75% interest) is completing a second line from Kirkuk to Haifa. It is 16 in. in diameter and will have a daily capacity of 120,000 bbl. The recent troubles have also been hampering the work on this line.

(2) This company is also building a 24-in. line from Kirkuk to Tripoli. Scheduled for completion in 1952 or 1953, it will have a capacity of about 250,000 bbl. daily.

(3) Trans-Arabian Pipe Line Co.'s Tapline project is scheduled for completion about Jan. 1, 1950. The line will be of 30-in. and 31-in. pipe, will have a capacity of 300,000 bbl. daily. Four U. S. companies are backing the project: Standard Oil of California, Texas Co., Standard Oil of New Jersey, and Socony-Vacuum.

(4) Middle East Pipe Line Co. is planning a 900-mile line from Adaban and the Burghana field in Kuwait to a Mediterranean port, probably in Syria. This is the biggest oil pipeline yet planned. Its throughput is to be 500,000 bbl. to 550,000 bbl. daily. Construction is scheduled for 1950 and 1951. Companies behind it are Standard of New Jersey, Socony-Vacuum, and Anglo-Iranian (which has 50% of the stock).

There is also talk of a fifth pipeline, from Kuwait to the Mediterranean. Gulf Refining and British Shell are to back this one.



In 1937: An unwieldy camera with mechanical scanning equipment televised Felix the Cat in the NBC studios



Early viewers got sparse fare. Receivers, located mainly in the homes of radio executives, looked like made-over radio sets

Television Reaches Stage of Big-Volume

Output of receivers made a big jump in 1947, will soar even higher in '48. Main problem still unsolved: weaving national networks.

One year from this month a President of the United States will be inaugurated in Washington, D. C. The last inauguration took place Jan. 20, 1945; fewer than 8,000 people witnessed it.

On Jan. 20, 1949, a minimum of 2-million persons will watch the Chief Justice administer the oath of office. Only a few thousand of them will see it in the flesh, however; the rest will see it by television.

• **Forecast**—This sanguine estimate represents the belief of telecasters and equipment manufacturers that 1948 will be the boom year for television. Before the 1949 inaugural, televisors expect to see more than 750,000 sets in homes and bars throughout the country.

Most of these will probably be served by a multi-city network covering the East Coast from Richmond, Va., to Boston. Some forecasters say that by 1949 the web will have reached Chicago and Los Angeles.

Production Spurt

The set-makers hook their hopes to a fast-rising production rate (chart, page 26). In January of 1947 the industry was turning out 5,437 receivers a month. By November the monthly rate had gone up to 24,135. The manufacturers feel that an industry that turned out more than 15-million radio sets in 1947 can pro-

duce at the rate of 1-million video sets a year by 1949.

The television broadcasters love these figures. On them they base their dreams of a multimillion viewing audience. And they know they must realize that dream before they can charge time rates high enough to make the medium pay its own way.

• **Interested**—The advertiser watches set-production figures, too. But he watches something else just as closely—the character of the television audience. Before he jumps into this new medium he wants to know the age, sex, income level, and habits of the viewer. Little has been done in this field; what research there is has been done mainly by the advertiser.

One group that is ready to ride the coat-tails of video's success neither makes sets nor telecasts programs. Instead it advises advertisers about video problems, makes television commercials on film, builds packaged programs for sale to telecaster and advertiser alike. It has started schools of television acting, writing, and production. It publishes newsletters, puts out publicity blasts—and hangs on, waiting for the great day.

• **The Picture**—This is video today; in itself it is not a startling picture. It consists of 12 cities now served by 19 television stations. Between them they split about 190 advertisers and an audience which owns from 100,000 to 150,000 re-

ceiving sets. None of the stations operates at a profit. Infant networks exist on the eastern seaboard; but most of the relay facilities must be shared by the telecasters who want network time.

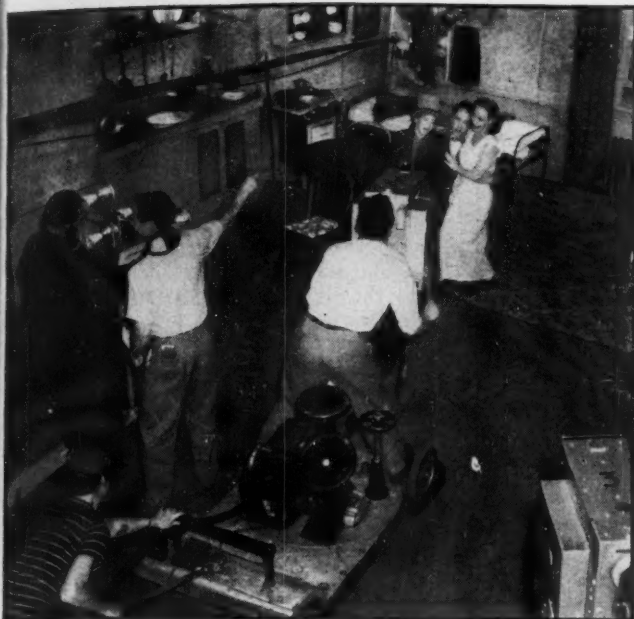
The startling part of the picture is what it implies for the future. More and more sets at lower prices are coming on the market; they will be fed by growing networks threading their way from one coast to the other. That means that some day the viewing audience will rival or surpass the present-day horde of radio listeners. To the telecaster, the possibilities are immediate and unlimited.

How the Science Grew

No one man can be said to be responsible for television. The origins of video go back to 1873 when scientists discovered that light affected the conductivity of a metal called selenium. This provided a means of converting light waves into an electrical impulse.

The next step was the development of the photoelectric cell, which did the same job, but did it better. But there was one serious drawback in these discoveries: Both selenium and the photoelectric cell recorded only the total amount of light reflected by an image, not the image itself.

• **An Answer**—Paul Nipkow, working in Berlin, found an answer to this problem in 1883. His solution was to break up the image into many parts and transmit them one after the other. He counted on the viewer's "visual memory" to retain



In 1948: NBC's studio resembles a movie set. Electronic cameras have replaced clumsy mechanical equipment

A modern DuMont receiver brings telecasts to the home audience. More studio shows are appearing, but sports still dominate

Business and Mass Entertainment

the individual parts, piece them together to form an image.

The mechanism for doing this consisted of a whirling disc with holes punched near the circumference.

The receiver, developed by later experimenters, consisted of practically the same process, but in reverse.

• **Search**—During the first two decades of the 20th century, while experimenters here and abroad worked at perfecting their discs, a few men looked for a way to do the same job electronically. In 1923, Dr. V. K. Zworykin (now vice-president and technical consultant of RCA Laboratories) applied for a patent on a device called the Iconoscope. This recorded the image with a cathode-ray tube instead of the customary disc and photoelectric cell.

Instead of scanning the image with a whirling disc, the Iconoscope scanned with the stream of electrons. Once the cathode-ray tube and electronic scanning had entered the field, the course of television was determined.

• **Experimental Stage**—During the thirties video remained largely experimental. A few honored guests and the press enjoyed each demonstration the companies put on. But it often seemed that there were three hours of adjusting for three minutes of telecasting. And television was bringing in no money in return for the large amounts spent on its development.

The Commercial's Entry

In 1941 the Federal Communications Commission finally gave its official nod

to the televising of commercial programs. On July 1 of that year Bulova Watch Co. sponsored the first commercial telecast. It consisted of a one-minute time signal broadcast over WNBC in New York. The few set-owners who witnessed it saw a clock face, a second hand, and heard a voice.

This entry into television advertising cost Bulova \$9; \$4 was for transmitter charges, \$5 for studio facilities.

• **Advertisers Sign Up**—In video broadcasting today, \$9 doesn't go far; current NBC rates for a time signal are \$125. But telecasters point happily to the way advertisers are signing up to use the new medium.

At the end of 1946, with a total of eight stations on the air, 31 advertisers were sponsoring television programs on some kind of contract basis. By the end of 1947, with the station total up to 19, roughly 190 advertisers had video contracts.

• **Tie-Ins**—The numerical increase brought with it a change in the character of the sponsor. Many of the 1946 advertisers used video only for tie-in promotional possibilities. They followed their one-shot video programs with many grape-shot blasts of direct-mail promotion. These pointed out that the X Co. was right up to the minute: It was the first nut-and-bolt manufacturer to use television for advertising.

But during 1947 many big companies sponsored television shows for far more serious purposes. A television report just released by General Foods Corp. shows

the sobriety with which one large advertiser looked into the medium.

• **A Pioneer Reports**—General Foods joined the television ranks to experiment with visual programs and commercials. Equally important, however, was the company's desire to stake out time claims on NBC, CBS, and DuMont stations. In addition, the company expected that a year's experience in the field would give it a slide rule to figure television's place among advertising media.

The company sponsored 217 programs (including 132 weather reports) of 14 different types. At the same time it examined the audience.

The average New York City television family, General Foods found, owns a set with a 7-inch or 10-inch screen, bought it within the last year. The family pays more than \$75 a month for rent and has a telephone. There are 3.3 persons in the family; they invite friends to drop in for a telecast about three times a week. The head of the family is an executive, professional man, or owns his own business. An average of 3.47 persons watch the set every night.

During the survey period, 42 hours of television were available per week. Mr. Average Televiewer's set was turned on for 17 of them.

• **Survey's Conclusions**—General Foods concluded that the cost-per-thousand advertising figures for video were high. They do not, the company decided, warrant the use of television as a basic, mass-circulation medium—unless there are advantages over and above circulation. Gen-

eral Foods thinks these advantages exist.

The company's reasons for advertising via television brighten every televisioner's day. The audience, says the company, is selective, has a higher-than-average income; it is an all-family audience; it reacts favorably to commercials and—most important of all—it remembers the sponsor's name.

• **Another Convert**—American Tobacco Co. has also become a convert to video. Checks showed that 42.5% of all television set owners tuned in on the Saturday-afternoon football games sponsored by Lucky Strike; each set had 6.5 viewers. But the company is happiest about one particular statistic: Between 80% and 88% of the viewers contacted could identify the sponsor.

Enthusiastic telecasters would like to dwell on the last point. They feel that it is the big advantage that video has over radio. Plying the customer with both audible and visual commercials makes a far greater impression than merely bombarding his ears. And, they add, a visual presentation really kindles the desire for a product.

What the Advertiser Pays

The cost to the advertiser for kindling that desire varies according to the receiver population of the city served. It even varies slightly among stations in the same city.

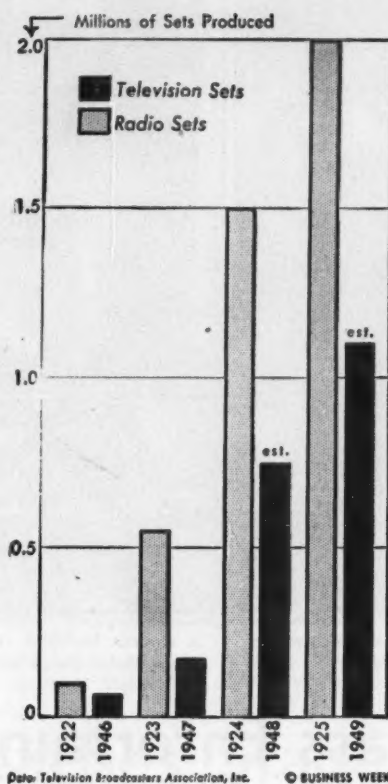
• **NBC's Rates**—Time charges on NBC's New York station, for example, are \$500 for one hour. In addition there is a studio-facilities charge of \$1,000 for one hour of broadcast time (this includes five hours of rehearsal). Film-studio time costs less: \$250 for one hour of telecasting and three hours of rehearsal.

• **DuMont's Charges**—DuMont's rates for a one-hour program depend on the time of day it's transmitted. Between noon and 6 p.m. the charge is \$500 per hour. From 6 p.m. to 7 p.m. it costs \$650, and from 7 p.m. to 11 p.m., \$800 hourly. The rates include studio costs, although rehearsal is charged extra at \$75 for the first hour, \$37.50 for each additional half hour. When film only is used on periods of five minutes or more, DuMont knocks 20% off.

• **CBS' Scale**—During 1947 CBS charged advertisers half the average cost of operating its television facilities, paid the other half itself. But ushered in with 1948 was a new CBS rate card. The charges: one hour of air time, \$400; additional charge for use of film facilities, \$125 per hour; extra rehearsal (one run-through free), \$100 per hour. At present CBS airs no live studio shows.

The Program Problem

Telecasters have problems other than convincing advertisers that the rate-per-



thousand is not too high. One is programming (BW—Sep. 13 '47, p. 70).

• **Parallel**—An interesting parallel exists between today's television programming and the early development of movie programs. The earliest penny-arcade movies featured plenty of boxing. And since there weren't enough fights to put on celluloid, moviemakers sometimes promoted their own matches. Many of the contests were fought in smaller-than-regulation rings, because the early movie cameras had a highly limited depth of focus.

Once movie houses came into existence, however, the whole family began going to them. Thus the bill of fare changed, too; fights went out; comedy and drama came in.

Like the early movies, television still leans heavily on sports events. Studio programs are expensive and, to a large extent, experimental. A studio show frequently needs sets, costumes, expert camera handling, and split-second scheduling. Video hasn't mastered all these problems as yet.

• **Whom to Please?**—Another programming grief arises from the currently split personality of the audience. Many of the viewers are in homes; many belong to the bar-and-grill set. Both groups have well-defined tastes, and pleasing both at the same time is not easy.

Many televisioners are solving this problem by aiming solely at the home audience. Home television sets already out-

number bar sets substantially in most video-served cities. They are expected to boost their numerical lead in 1948. And besides, some televisioners add, tests show that sponsor identification in tavern circles is several cuts below that of the homebodies.

Other telecasters, however, are going out of their way to plug sports. Cincinnati's Crosley Broadcasting Corp., like the early movie makers, may go into the fight promotion business itself. The reason: Local promoters refused Crosley permission to televise any more fights after a recent poorly attended match. The promoters blamed the fact that the fight had been televised; Crosley blamed the caliber of the match.

• **Who Listens When?**—Shortage of available viewing hours is another snarl that the telecasters are trying to untangle. Many observers feel that the housewife is not going to be able to watch a television screen while she washes, peels potatoes, and cooks the evening meal. Will she be able, they ask, to transfer her radio-listening habits to video?

Naturally the televisioners think so. The whole family, says one NBC executive, will develop new living habits; each member will take time to watch favorite programs. No one will watch all the telecasts, but everyone will watch some of the time.

• **More Problems**—Still another problem the telecaster faces is financial. In return for all the money television companies have poured down the well in development (industry estimate for 1948: \$10-million), they have pulled up relatively few dollars.

There are certainly other hurdles that can now be seen only in dim outline. For instance, labor experts can see ahead a nasty jurisdictional fight among unions representing musicians, performers, electricians, stage-set builders, film operators, and others in the movie and radio industries—all of whom will want a good slice of the television pie when it gets financially tasty.

When Do Profits Start?

When television will begin to pay off is anybody's guess. One executive of a large television company estimates the break-even point at early 1951.

The well-heeled telecasters, however, counter these worries with thoughts of how good business will be when video finally hits its stride. After all, they point out, set production, and hence the audience, is growing fast. The number of stations is rising. Networks are expanding. Everything looks rosy.

• **Gain in Output**—In many ways the telecasters are right. Set production is achieving new highs. From a total production of 6,485 sets in 1946, the in-

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RYERSON STEEL



How to get your man...by mail!

Sales Mgr.: Our new manager in Oswego is really on his toes. Look at these sales figures!

Secretary: You certainly picked the right man for the job. How do you do it?

Sales Mgr.: By mail in this case! Remember the letter you typed to the Marine Midland Bank in Oswego, asking them to recommend a man familiar with that territory? Those bankers know the people in their community. When they suggested this chap, I was sure I could rely on their judgment.

Secretary: Gosh...it's too bad a girl can't find the right man—by mail!

Helping executives throughout the country fill important positions in their New York State branches is one of the many ways Marine Midland serves business. There are 19 Marine Midland Banks with 98 offices in 47 New York State communities. Let them help you solve personnel problems!

The

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TRUST COMPANY**
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How Network Facilities Will Grow



- Cable facilities in current operation
- ~~~~~ Microwave relay facilities in current operation
- Additional cable and microwave relay facilities expected by 1949

dustry climbed to 149,226 in the first 11 months of 1947. (One 1947 event that cleared the way for mass output was the Federal Communications Commission's decision in the color issue. RCA was panting to go ahead with black and white video; CBS said the whole thing should be held up until color was ready. RCA won its point [BW-Mar.22'47,p20] and now you don't hear much about color—at least for the near future.)

Rosier and somewhat less well documented are production estimates for 1948 and 1949. For 1948 the figure has been put anywhere from 500,000 to 750,000 sets. Some crystal balls show that 1949 production will top 1-million.

• **More Manufacturers**—Estimates like these are based not only on increased production per manufacturer, but on a jump in the number of set makers. In 1946 there were 14 companies making receivers. Among these were: Radio Corp. of America, General Electric Co., Philco, DuMont, Farnsworth, Stewart Warner, Stromberg-Carlson, Emerson, U. S. Television, and Crosley.

Last year 22 additional companies got into production. Many were small, but each hoped to convert its trickle of video receivers into a torrent.

The Price Question

Price is the biggest problem facing the set makers. Until the announcement of new low-cost sets by Hallcrafters, Motorola, and Colonial recently, the cheapest television receivers cost about \$250.

Telecasters know that advertisers won't buy video time in quantity until receivers are more common. And until set prices come down, the average American is priced out of the market. Of course, televisers remember that, in the early 1920's, when most family incomes were a lot lower than they are now, many a household had a high-priced radio set that it could barely afford.

• **What Sets Cost**—Today RCA's least expensive set is a table model with a ten-inch viewing tube. It costs \$325. The company's most expensive receiver projects a 15x20-in. image from a smaller tube, provides AM, FM, and short-wave reception. The cost: \$1,195.

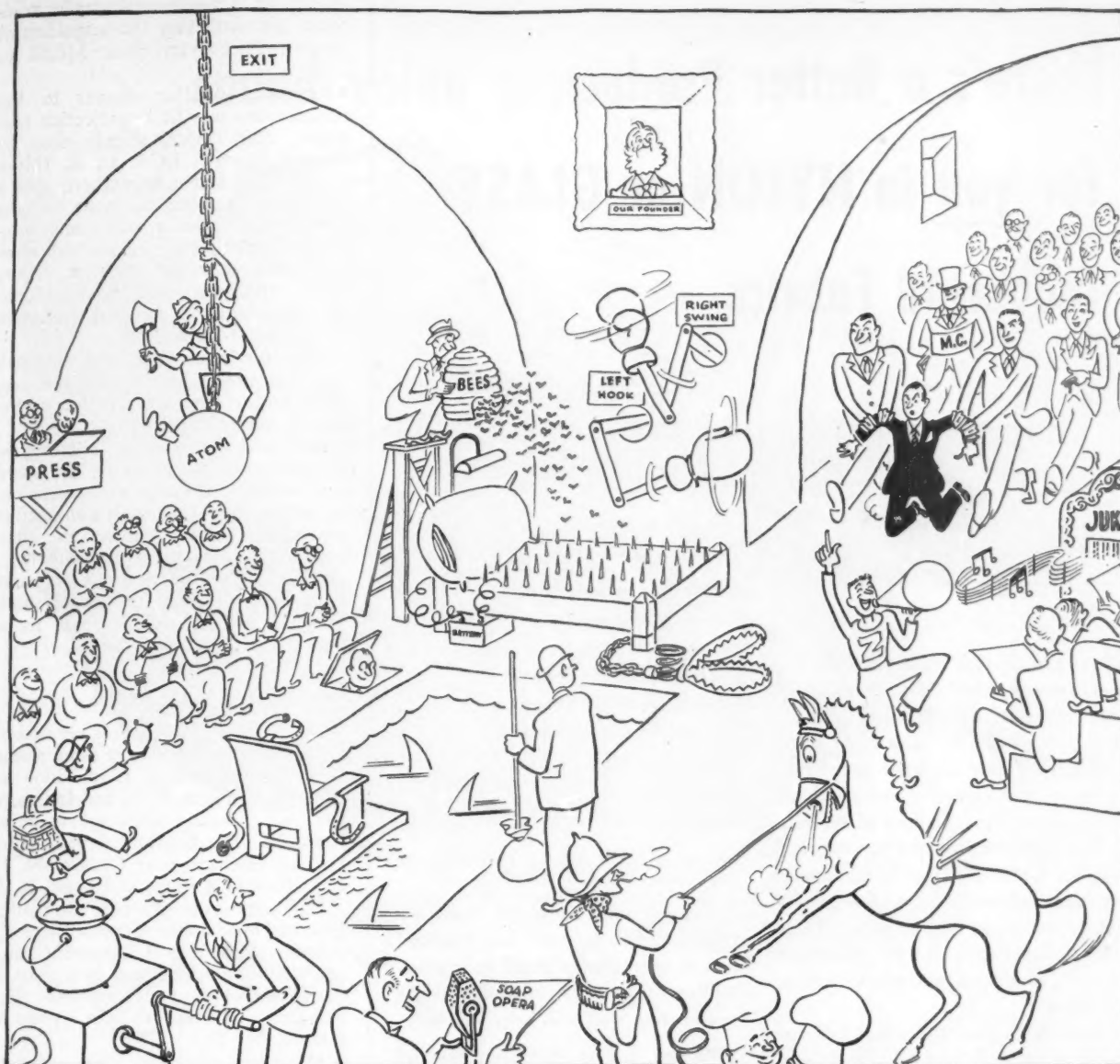
General Electric's prices range from \$465 for a table model with AM, FM, and a 10-inch tube, to \$2,250 for its fanciest console set. The latter features an 18x24-in. projected picture.

DuMont's receivers begin at \$445 (12-inch direct-view tube, AM, FM) and go to \$2,495 for a super console with a 20-inch direct-view tube.

Philco's price for its 10-inch model is \$395; a 15x20-inch projection console model tops the list at \$795. In addition, each company makes an installation charge which varies from \$45 for home models to \$165 for bar-and-grill sets.

• **Magnifiers**—Hallcrafters, Motorola, and Colonial, whose seven-inch table models cost from \$169.50 to \$179.50, may be counting on the new magnifiers being made for small-screen video sets.

These are designed to transform images from seven- and ten-inch tubes into the equivalent of 15-inch-tube



Have You Ever Been the Victim of a "Clannish Imposition?"

THAT original Chinese "Slow-Drip" Torture has been refined and improved beyond recognition in many business houses right here in this country.

You know such organizations. You earn their lasting enmity by your impertinence in trying to give them some business. Whereupon these like-minded Torquemadas turn on you in a pack and give you the full slow-motion treatment of snubs, cuts, jabs, back-handers, ham-stringers, backbiters—all rubbed in with sonorous double-talk.

Not for us. We see no valid reason to treat customers like murder suspects. Rather, we see every reason to try to make our everyday business relations as bright, easy-flowing, and self-lubricating as our products themselves — Bristol Brass sheet, rod, and wire.

Yes, for 97 years we have maintained that you can move faster and do more business — more efficiently and pleasantly — *if you work in an unstuffed shirt.* If *you* wear that same kind of shirt, then we could talk things over on

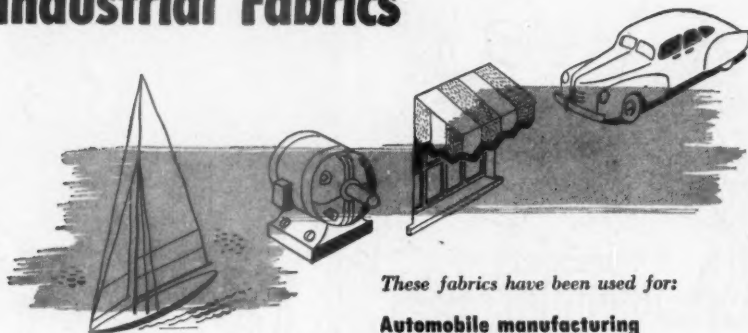
solid common ground, whenever it suits you to do so. Just say when.

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Have you thought of Industrial Fabrics in your product as you would other raw materials? Just as you'd think of steel, wood, rubber, plastics or even paper. They have the basic properties of many raw materials and combine the most valuable qualities of several.

For example, weight-for-weight, Duplan Glass Fabrics have greater strength than some types of steel, yet can be woven as thin as paper. They offer the easy-to-work-with properties of cloth, plus the dimensional stability of glass.

Certain Duplan Industrial Fabrics resist most acids and alkalis; others are not affected by climatic changes.

Glass fabrics withstand temperatures which shrivel up organic insulators. They don't bulk up...they cut down weight, make products more compact.

Industrial Nylon fabrics have great strength, elasticity...resist rot and mildew. They are woven in light to heavy weights, and have many industrial uses.

Where one Duplan Fabric does not provide *all* the properties required, special weave combinations can be "engineered"...efficiently, economically.

images. RCA and several smaller companies are marketing the magnifiers at present. Prices vary from \$10.00 to \$59.95.

• **Projectors**—Another answer to the cost problem may lie in projection television. This device, already used by General Electric, RCA, U. S. Television, Philco, and a few others, uses a very small (five- to six-inch) viewing tube and an optical system which projects and enlarges the image. The viewing tube is a major cost item in any video set; thus a small, mass-produced viewing tube and a low-cost projection system might do the trick.

The only joker: At present the small tubes for projection use must give very sharp images; achieving this runs up the manufacturing cost.

• **Bottlenecks**—The main limitation on set production seems to be the speed with which the component parts can be put together. One or two companies are having trouble getting the glass bases for viewing tubes—particularly in the larger sizes, which must be hand-blown. This and an occasional shortage of cabinets, however, seem to be the only materials bottlenecks.

Geography

The location of receiving-set makers follows roughly the map of radio manufacturers. RCA makes its television receivers in Camden, N. J., and Indianapolis, Ind.; viewing tubes are made at Lancaster, Pa. DuMont's production line for receivers is at Clifton, N. J., and for viewing tubes, at Passaic, N. J.

Philco turns out its sets at two plants, both in Philadelphia. General Electric's assembly plant is in Bridgeport, Conn., and will be complemented by a plant in Syracuse, N. Y., early in 1948. The company's tubes are made in a plant in Buffalo, N. Y.

• **Allocation**—Although the ultimate market expansion depends on bringing set prices down (and vice versa), most manufacturers feel that the present market is just about ideal. At the moment there seems to be more trouble in allocating sets than in selling them, although it is possible to get immediate delivery on most models.

Every time a new station comes on the air, some production must be shifted to the new area. RCA allocates its production in proportion to population served by television and to the quantity and quality of programming. Philco bases its allocation on population and income distribution. But when Philco first entered the field, it concentrated its sales in Philadelphia (where it owns and operates a television outlet), then added New York and Washington in turn.

At present there seems to be only the smallest used-receiver market, despite the fact that trade rumors say a

sound value grows fast



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The Clary machine means time saved, lower overhead costs, and better efficiencies wherever it is used. A Clary nation-wide network of factory-

supervised sales and service offices is expanding in step with increasing production ... organized for prompt delivery, better service, and greater convenience to you. So before you *buy*, be sure to *try* the new Clary.

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Johnstown, Pa.
Newark, N. J.
New York City
Philadelphia, Pa.
Pittsburgh, Pa.
Plattsburg, N. Y.
Scranton, Pa.
Springfield, Mass.
Syracuse, N. Y.
Trenton, N. J.
Utica, N. Y.
Wilmington, Delaware

South Atlantic
Asheville, N. C.
Atlanta, Ga.
Augusta, Ga.
Baltimore, Md.
Charleston, S. C.
Charleston, W. Va.
Charlotte, N. C.
Charlottesville, Va.
Columbia, S. C.
Greensboro, N. C.
Greenville, S. C.
Hagerstown, Md.
Huntington, W. Va.
Miami, Fla.
Norfolk, Va.
Orangeburg, S. C.
Parkersburg, W. Va.
Richmond, Va.
Roanoke, Va.
Salisbury, N. C.
Tampa, Fla.
Washington, D. C.
Wheeling, W. Va.
Wilson, N. C.

East North Central
Bloomington, Ill.
Canton, Ohio
Chicago, Ill.
Cincinnati, Ohio
Cleveland, Ohio
Columbus, Ohio
Dayton, Ohio
Decatur, Ill.
Detroit, Mich.
Evansville, Ind.
Fl. Wayne, Ind.
Grand Rapids, Mich.
Harrisburg, Ill.
Indianapolis, Ind.
Kankakee, Ill.
La Crosse, Wisc.
Marion, Ohio
Milwaukee, Wisc.
Omea, Ill.
Peoria, Ill.
South Bend, Ind.
Springfield, Ill.
Toledo, Ohio

East South Central
Anniston, Ala.
Biloxi, Miss.
Birmingham, Ala.
Bowling Green, Ky.
Dothan, Ala.
Gadsden, Ala.
Gulfport, Miss.
Hattiesburg, Miss.
Huntsville, Ala.
Kingsport, Tenn.
Knoxville, Tenn.
Lexington, Ky.
Louisville, Ky.
Memphis, Tenn.

West North Central
Aberdeen, S. D.
Alliance, Nebraska
Bismarck, N. D.
Davenport, Iowa
Des Moines, Iowa
Fargo, N. D.
Joplin, Mo.
Kansas City, Mo.
Minneapolis, Minn.
Omaha, Nebraska
Rochester, Minn.
St. Cloud, Minn.
St. Joseph, Mo.
St. Louis, Mo.
Sioux City, Iowa
Sioux Falls, S. D.
Springfield, Mo.
Wichita, Kansas
Worthington, Minn.

West South Central
Amarillo, Texas
Austin, Texas
Batesville, Ark.
Baton Rouge, La.
Blytheville, Ark.
Corpus Christi
Covington, La.
Dallas, Texas
Duncan, Okla.
El Paso, Texas
Fl. Worth, Texas
Helena, Ark.
Houston, Texas
Jonesboro, Ark.
Lafayette, La.
Lubbock, Texas
Lufkin, Texas
Monroe, La.
New Orleans, La.
Oklahoma City, Okla.
San Antonio, Texas
San Benito, Texas
Shreveport, La.

Mountain
Albuquerque, N. M.
Billings, Mont.
Boise, Idaho
Clovis, N. M.
Denver, Colo.
Grand Junction, Colo.
Ogden, Utah
Phoenix, Ariz.
Reno, Idaho
Salt Lake City, Utah
Tucson, Ariz.
Twin Falls, Idaho

Pacific
Baker, Ore.
Chico, Calif.
Eugene, Ore.
Fresno, Calif.
Highland, Calif.
La Grand, Ore.
Long Beach, Calif.
Los Angeles, Calif.
Pendleton, Ore.
Portland, Ore.
Sacramento, Calif.
Salem, Oregon
San Diego, Calif.
San Francisco, Calif.
San Jose, Calif.
San Luis Obispo, Calif.
Santa Ana, Calif.
Santa Barbara, Calif.
Seattle, Wash.
Spokane, Wash.
Stockton, Calif.
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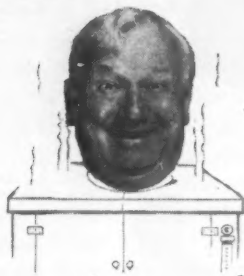
BW 1-10

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FIRM _____
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CITY _____ ZONE _____ STATE _____

Costs Growing too **HEAVY**?



...here's a sure way
to **LIGHTEN 'EM!**



If you'd like to *thin down* an excessive cost load, pay more attention to the products you use for sanitary maintenance.

Sanitation products, not costly in themselves, may be so slow and inefficient that they eat into profits to a greater degree than you suspect.

West Maintenance Products are designed to save labor man-hours through ease of use. They are more economical and provide maximum efficiency. Hand Cleaners, Floor Maintenance Materials, Insecticides, or products for proper washroom sanitation—all add up to help reduce employee absenteeism and turnover, by protecting health and building plant morale.

West maintains nearly 500 specially trained representatives from coast to coast to help you with your industrial sanitation problems. Contact one at once—you'll find him full of money-saving recommendations.

Products that Promote Sanitation

WEST DISINFECTING
Company

42-16 West St., Long Island City 1, N.Y.



VIDEO BUILDERS: NBC's F. E. Mullen, DuMont's A. B. DuMont, CBS' L. W. Lowman

few small-screen sets are being turned in on larger models.

Broadcasting Picture

In the broadcasting end of the business there is already a flock of stations in the act, and plenty more are trying to get in.

• **New Stations**—Fifty-four prospective stations now have construction permits. Another 64 have filed applications. An interesting footnote is the fact that roughly one-fourth of the licensed station operators, permit holders, and applicants are newspaper publishers. Most of the others are radio stations.

How many of these stations will be on the air by the end of 1948 is another question for the swivel-chair league. Although a station can be put up in a relatively short time, telecasting equipment is not easy to get. The makers of transmitting equipment are quoting delivery dates that are from six to 12 months away on new orders. And there's many a short circuit between the construction permit and the image on the public's receivers.

Networks Are Needed

Television's greatest marketing value will come with the development of video networks. Here there are problems, too.

• **Short Range**—Unfortunately, television waves travel in a straight line instead of following the curvature of the earth. Therefore for long-distance transmission it is necessary to send programs by cables or short aerial relays.

At present many advertisers are apathetic about television because lack of network facilities limits the audience. But when a New York telecast can be seen in Chicago and Los Angeles, the most cautious advertiser will consider the medium seriously. Even when the new webs spin cross the country, the short range of transmitters will limit much of the audience for some time to cities and suburbs.

Today's embryonic networks represent only the barest outline of what a

workable network will have to be. With a few exceptions, most telecasters are relying on American Telephone & Telegraph Co. to set up the relay facilities.

• **Two Types**—There are two ways of relaying telecasts at present. One is the coaxial cable. In this system a telecast is transmitted from city to city by wire like a long-distance telephone call.

The second system, called "microwave relay," transmits programs by radio waves. This method requires a series of radio towers spaced at intervals of 30 to 60 miles; each of these picks up the signal from the preceding tower, relays it to the next.

Currently A.T.&T. operates a coaxial-cable link connecting New York, Philadelphia, Baltimore, and Washington. The company also has set up a microwave relay system between New York and Boston; Boston, however, has no station at present.

• **Beginnings of Microwave**—General Electric is one of the companies which operates its own microwave relay system for television purposes. The G. E. link is between Schenectady, N. Y. (where the company operates a station), and New York City (BW—Oct. 4 '47, p66).

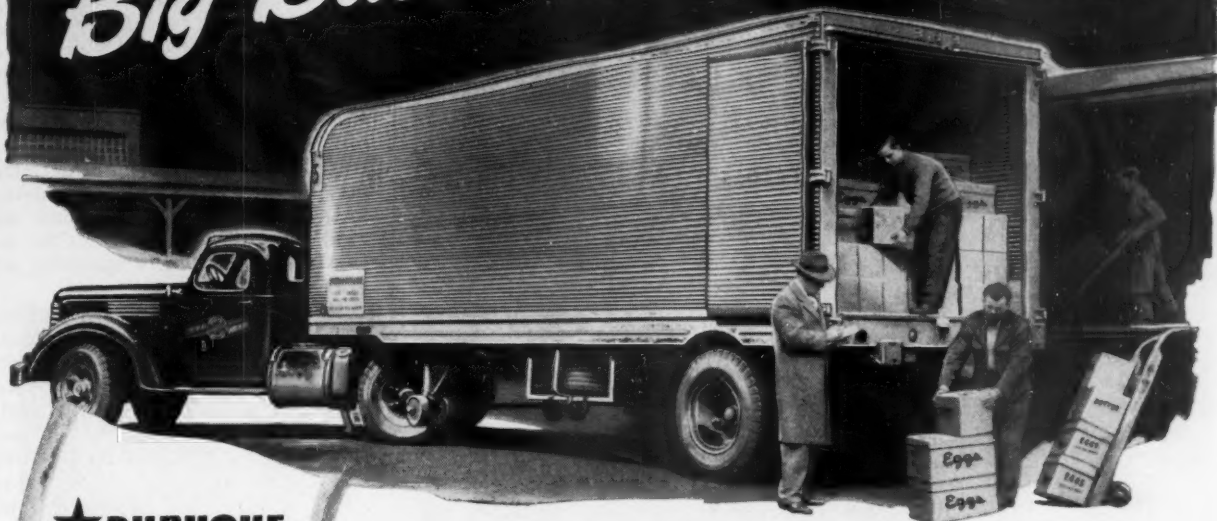
Philco also operates a microwave relay between New York and Philadelphia and exchanges programs with NBC.

The theater chain of Balaban & Katz centering in Chicago has installed a microwave relay between South Bend, Ind., and Chicago, but as yet South Bend has no station.

• **Prospects**—The question of how soon a nationwide network of cables or relay towers can be set up draws plenty of answers. NBC's hopeful estimate connects Chicago, St. Louis, and a host of intermediate cities with New York by the end of 1948. The company also expects to see New York television programs being aired in Los Angeles by that time.

A.T.&T., the company laying the cables and building the towers, is more conservative. Phone company officials will prophesy only that Richmond, Va., and Charlotte, N. C., will be hooked into the East Coast network before the end of 1948. Chicago and Los Angeles,

Big Butter and Egg Van!



★ DUBUQUE



BIG PAYLOADS... *There and Back*

When Chicago-Dubuque Transportation Company began business, loads were only butter and eggs from Iowa producers to Chicago markets. Soon merchants requested that general merchandise be carried on return trips. Now, big loads move with speed both ways on scheduled 6-hr. runs — all by Trailers.



CHICAGO ★

10 TRUCKS *Pull* 21 FRUEHAUF TRAILERS!

Butter and egg producers in the rich agricultural area which surrounds Dubuque, Iowa, had a problem to solve.

Chicago was their chief market—200 miles away. Creamery butter and eggs had to be delivered fresh in order to command top prices. Holding hauling costs to a minimum was a "must" to meet competition.

Direct Trailer delivery was the answer . . . and here is a perfect example of how loads go up and costs go down by this modern, flexible method.

"SHUTTLE" OPERATION!

Chicago-Dubuque Motor Transportation Company established terminals in Dubuque and Chicago. They bought Fruehauf Refrigerated Trailers—2 for every power unit.

This permitted empty Trailers to be left standing for loading while the trucks were coupled to loaded

Vans and rolled on to destination. Each truck pulled bigger loads, made fewer trips, worked with minimum delays and served customers better.

ADDS STAINLESS STEEL VANS!

More Trailers were added. Today, 5 new Stainless Steel "rolling refrigerators"—all big butter and egg Vans—bring the total up to 21 Fruehaufs. With only ten trucks to pull them, this fleet forms a continuous "conveyor belt" between the two cities—with money-saving economies not possible by any other method.

TRAILERS MAY HELP YOU!

The Fruehauf man in your vicinity can tell you of many other examples of Trailer economies. Let him help you solve your hauling problem.

World's Largest Builders of Truck-Trailers
FRUEHAUF TRAILER COMPANY
DETROIT 32, MICHIGAN

IF IT'S STAINLESS STEEL IT'S A FRUEHAUF!

Only Fruehauf builds Stainless Steel Trailers! They are lighter but stronger and non-corrosive. The fact that experienced users everywhere are buying more and more—in fact, by the hundreds—is recognition of their long life, their lasting beauty and phenomenally low maintenance costs.

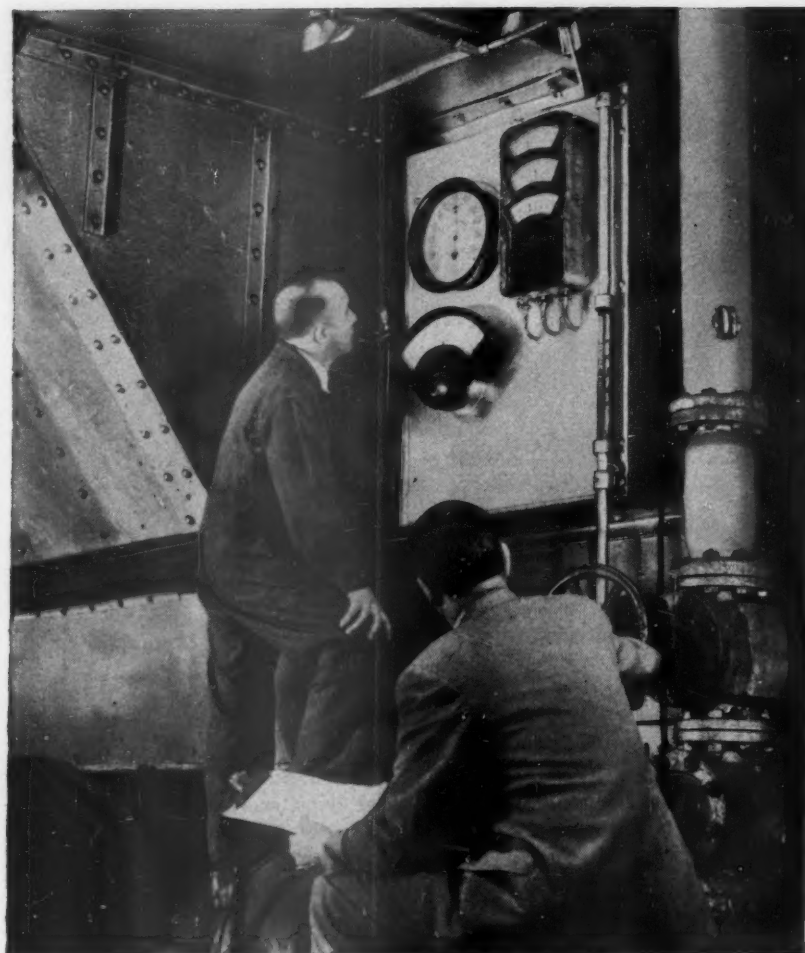


MOTOR TRANSPORT PAYS ITS WAY!

- Only 1 in every 6 vehicles on the road is a truck
- Only 1 in every 5 miles traveled is by truck
- Yet 1 in every 3 highway tax dollars is paid by trucks

FRUEHAUF Trailers

"Engineered Transportation"



His checks protect your checkbook

The periodic check-ups of power equipment by this Hartford Steam Boiler inspector may add years to the useful life of a costly installation in your plant—as hundreds of case histories show.

He is one of a staff—the largest of its kind—that is nationally recognized for its specialized training in detecting conditions that *could* lead to an accident—and hit your checkbook hard.

This staff gives full time to periodic inspections of power equipment insured with Hartford Steam Boiler. It has on call the experience accu-

mulated by the Company in 82 years of concentration in this one highly specialized line. Moreover the field inspectors are strategically located so as to be quickly available for help in emergencies.

These are some of the considerations that make Hartford Steam Boiler the first choice, by a wide margin, among purchasers of boiler and machinery insurance.

Your agent or broker can tell you how the Company's unique facilities can help protect your own plant.



The Hartford Steam Boiler Inspection and Insurance Company
HARTFORD, CONNECTICUT

Covers: Boilers • Pressure Vessels • Steam, Gas and Diesel Engines • Turbines • Electrical Equipment

they say, will be connected "later."

Other companies may ease the network situation, but it's hard to say when. Western Union is laying groundwork for New York-Chicago radio-relay towers; FCC has already approved the company's plans for a New York-Philadelphia relay. Paramount Pictures is also said to have a Chicago-New York relay in the talking stage.

• **Station Ownership**—Networks, however, do not consist solely of facilities. Each web will eventually own certain stations (FCC limits direct ownership to a maximum of five stations) and "affiliate" with others. NBC, CBS, and DuMont are the main operating networkers at present.

NBC owns stations in New York and Washington and plans to open outlets in Cleveland, Chicago, and Los Angeles. The company is rounding out its web with affiliated stations—independently owned outlets which will air NBC network programs in addition to their own.

The CBS web now consists of one station in New York City and informal program-exchange agreements with several other stations. The company has filed for permission to build stations in Boston and Chicago, and has plans for two other CBS-owned outlets.

DuMont owns stations in New York and Washington, has program-exchange arrangements with other outlets. Applications are pending for permits to build in Cleveland and Cincinnati; the company has a permit for Pittsburgh.

Where Do Theaters Come In?

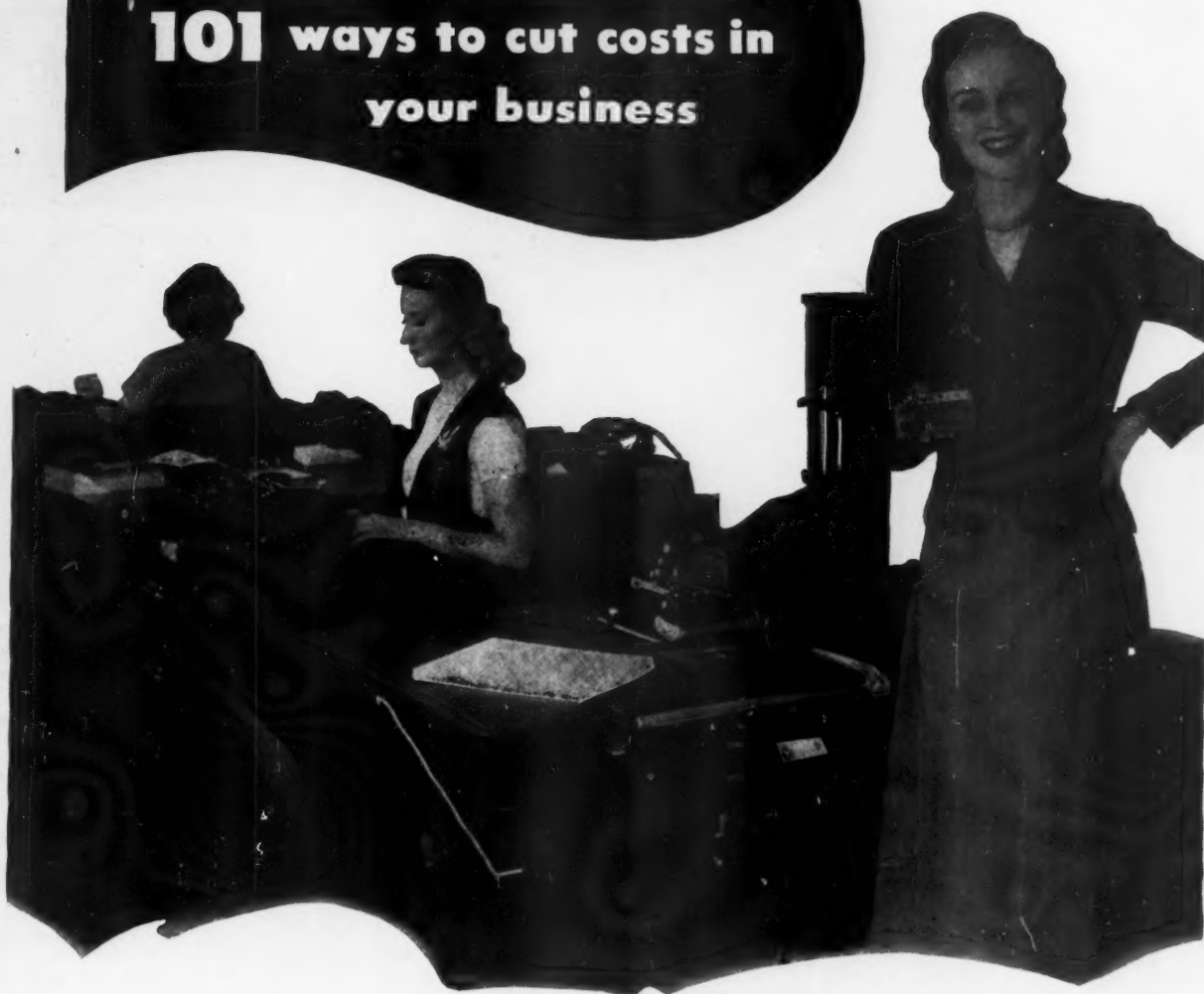
While straight telecasting forms the trunk of the television tree, lots of branches have begun to sprout. One is large-screen television for use in moving-picture theaters. RCA, which has research contracts with Warner Brothers and Twentieth Century-Fox, has demonstrated a set with a 6 x 8-ft. screen.

Paramount Pictures is going after the problem of showing on-the-spot news to theater audiences in a different way. The company's plan involves making movies from telecasts received in the theater's projection booth. Quick-developing film, says Paramount, will enable theater audiences to see news events with only a 66-second delay.

Other collateral uses for television are under study in various quarters. These include use of video for educational purposes, observing hospital operations, and viewing dangerous industrial and scientific phenomena from a distance (BW—Nov. 29 '47, p51).

• **Ahead?**—All in all, the boom year for television may well turn out to be 1948. But it will be several years before telecasters can devote less time to problems of development, more time to counting the shiny dollars which advertisers will pour into their tills.

101 ways to cut costs in your business



They're yours on a plate!

THE young lady is holding an Addressograph plate—symbol of the world's fastest method for putting words and figures on business forms.

Once information is put on these plates, it can be written again and again with complete accuracy at a speed of 5000 words or 30,000 figures a minute.

Every department of your business can save time and money by using this labor-aiding, mechanized, precision method of writing anything that must be written more than once.

For example, with Addressograph simplified

business methods one company cut the cost of inventory writing from \$1183 to \$29; another reduced personnel record writing from 23 operations to 1; another cut billing time on accounts receivable from 9 days to 1½.

Whether your business is large or small you can save wherever paper work is handled. For a check list of "101 ways to cut costs in your business" and a copy of the booklet "The Principal Clerical Task of Business", write Addressograph-Multigraph Corporation, Cleveland 17, Ohio, or phone our nearest office.

Addressograph

TRADE MARK

SIMPLIFIED BUSINESS METHODS

Addressograph and Multigraph are Registered Trade Marks of Addressograph-Multigraph Corp.

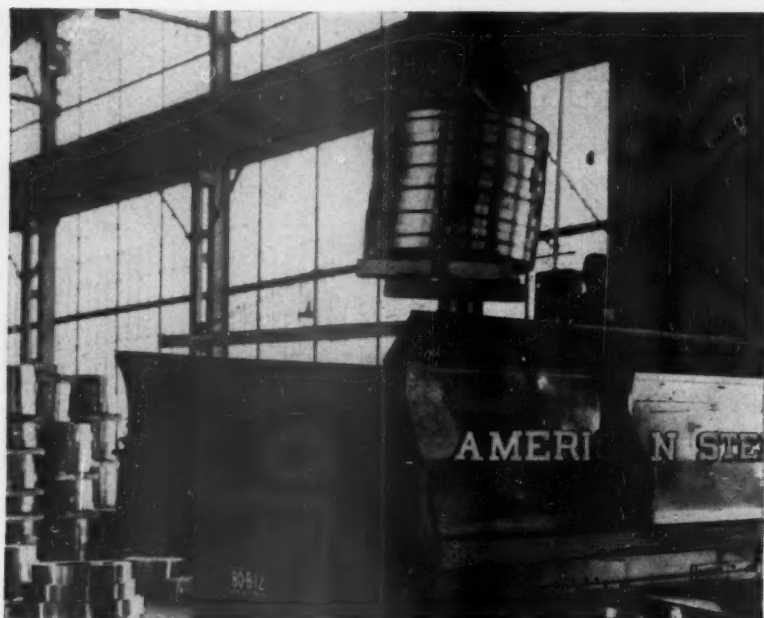


Photo courtesy Cleveland Graphite Bronze Co.

40,000 lbs. of strip steel unloaded *in only 8 minutes*

A crane operator and his helper used to spend 30 minutes unloading 40,000 lbs. of coiled strip steel from a truck in this bearing manufacturer's plant. Attaching and removing slings under the pallet took over twice as much time as the lifting operation itself.

MAGNETIC MATERIALS HANDLING solved the problem—safely. An Ohio Lifting Magnet cuts handling time 66% and unloads trucks at the rate of a pallet a minute. *Only eight minutes to unload an entire truck.* With more than 200,000 lbs. of strip steel arriving daily, Ohio Magnets save several hours in unloading time alone.

Ohio Magnets also reduce weighing time for each pallet after it has been unloaded. Coils are then stored faster and higher—to conserve floor space.

By lifting uniformly over the entire coil area, Ohio Magnets prevent distortion in

the precision finished strip. More than half a million pounds of strip are moved in and out of this receiving department daily for less cost in less time.

Find out how much your industrial plant can save by moving ferrous—or partially ferrous—materials with Ohio Magnets. They are cutting costs and speeding the flow of materials for steel mills . . . scrap yards . . . railroads . . . shipyards . . . Write today to Ohio: *for 25 years a leader in magnetic materials handling.*



*also a leading name in
the small motor field*

THE OHIO ELECTRIC MFG. CO.

5920 MAURICE AVE. • CLEVELAND 4, OHIO

AVIATION

For Safer Flying

Air Safety Board suggests airlines spend more on research and development, fire control, morale, and maintenance

The airlines were told last week that they ought to spend more money.

They should spend it on higher pay, pilots' retirement and pension plans, special safety staffs, and research leading to greater flying safety.

• **Safety Board**—The recommendations came—not from union headquarters—but from the President's Air Safety Board (BW—Jul. 12 '47, p6), headed by Civil Aeronautics Board Chairman James M. Landis. Landis' term as chairman expired Dec. 31 when he was not reappointed.

The Air Safety Board was set up June 15, 1947. This was its sixth and final report. It covered four major recommendations for safer air transport operations: (1) fire prevention and control; (2) maintenance and manufacture; (3) pilot and mechanics' proficiency and morale; (4) and research and development.

• **Points**—Major recommendations include:

- (1) Hiring full-time safety directors and staffs, whose decisions would be passed on only by top airline management.
- (2) Special certificates for mechanics doing specialized work.
- (3) Immediate arbitration of grievances growing out of pilot promotions and layoffs to boost morale.
- (4) Retirement and disability pension system for pilots.
- (5) Elimination of any incentive for pilots to fly in questionable weather by changing the pay system.
- (6) Higher pay for airway and airport control personnel.
- (7) Higher safety standards for non-scheduled operators.
- (8) Immediate research and development of safety fuels, hydraulic fluids, and fire detecting and fighting equipment.

• **Dissent**—But the airlines aren't going to start spending money immediately. Two minority reports make this clear. Howard B. Cox, Air Line Pilots Assn. representative, will file a separate report on personnel problems. And Milton M. Arnold, Air Transport Assn. representative, filed a dissent saying that the board's majority dealt with subjects of economics and policy that were none of its business.



LOAD CARRIER to ease Bell over aircraft-order desert. A new gasoline powered wheelbarrow takes ache out of concrete moving at Veterans Administration Hospital, Buffalo, N. Y.

Plane-Maker's Wheelbarrow

Bell Aircraft Corp.—which builds helicopters, and does experimental aeronautical work for government—introduces versatile, engine-driven Prime Mover as part of its diversification program.

Once the aircraft industry was the biggest business the world had ever seen. That was back in 1944. But today, the plane builders have fallen on hard days.

Airline purchases have slumped badly. Sales of private planes have failed to come up to hopes. And since the government still has no long-range air policy, the aircraft industry has no clear idea of the plans of its most important customer.

• **Diversification**—So, to keep their staffs together and their plants running, many plane builders have turned to nonaviation products (BW—Feb. 22 '47, p38). Next week, at the National Materials Handling Exposition in Cleveland, Bell Aircraft Corp. will display its latest experiment in diversified production—the Bell Prime Mover (picture, above).

The Prime Mover is a wheelbarrow powered with a 3-hp. gasoline engine which will carry half a ton in its bucket. By taking off the bucket and putting on a platform, the vehicle can be used as a handtruck. Bell says it can also be used as a small bulldozer or snowplow. The Prime Mover's engine is powerful enough to push it fully loaded up a 20% grade, according to the manufac-

turer. Three gallons of gas will run it for eight hours. The motor is inclosed, so that it cannot be splashed by materials.

• **Tests**—Bell believes the Prime Mover will be handy for excavation, building construction, coal yards, foundries, and many other industrial uses, as well as for estate work. One of the early models was tested by a coal company. The company had been using two men with ordinary wheelbarrows to put 18 tons of coal into the hold of an excursion steamer. The job took one hour and 45 minutes. With a Prime Mover one man did the job in an hour and a quarter. The company now has several Prime Movers.

A building contractor took one on trial. He found that one man with the Prime Mover could handle 1,000 pounds of wet cement at a time without much effort. A man with an ordinary wheelbarrow could handle only 200 pounds of wet cement—and it was hard work. The Bell wheelbarrow, incidentally, can also be equipped with splash guards for the handling of wet cement.

A separate sales organization is being set up to handle the power wheelbarrow. Assembly-line production is

...see for yourself!



—what Executone Intercommunication can do for your business!



Your Executone Distributor will Arrange a Demonstration in Your Own Office!

HERE YOU ARE—instant voice contact with key personnel, *pushbutton* production control! Use it under actual working conditions! See how Executone gets *action*—increases executive output, increases labor productivity, *cuts overhead!*



Just One Feature of the Complete Local Service offered only by Executone!

• Your authorized Executone Distributor and his staff of engineers plan and install Executone Inter-communication that's *custom made*...based on your operation methods, layout, communication needs. He guarantees Executone *unconditionally*... with *immediate* servicing, standard parts and units for expansion and replacement.

Distributors in 106 principal cities. Mail the coupon—*now!* No obligation.

Executone
COMMUNICATION & SOUND SYSTEMS

Mail Coupon for Further Information

EXECUTONE, INC. Dept. A-10

415 Lexington Ave., New York 17, N. Y.

Without obligation, please let me have—

☐ The name of my local Distributor

☐ New booklet, "How to Solve Communication Problems"

Name _____

Firm _____

Address _____

City _____

NEW TRUCKS--



NEW Styling

You're looking at the most attractive trucks ever designed. Wide, massive... DESIGN with a PURPOSE... combining appearance with comfort, safety, performance, economy, and ease of handling.

NEW Ease of Handling

Less turning space needed... right or left. Better weight distribution

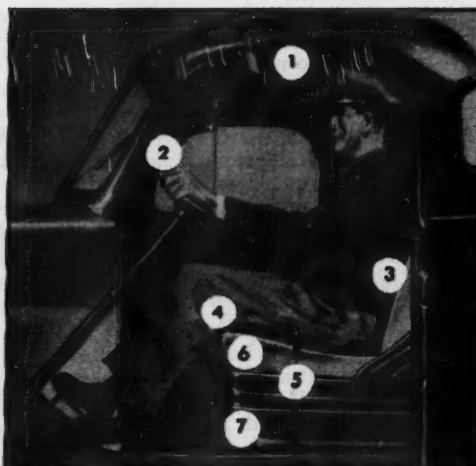
Remarkable new ease of handling and driving is yours in these new "Job-Rated" trucks. You can turn them in much smaller circles. You can park, back into alleys or up to loading platforms with much greater ease. You get all this with a new type of steering, in combination with shorter wheelbases that accommodate full-size bodies, and the roomier, longer cabs.

You get much better weight distribution, too, with this new design.

Front axles have been moved back, and engines forward. This places more of the engine and cab weight on the front axle. Loads are more evenly distributed.



NEW COMFORT



- ① PLENTY OF HEADROOM.
- ② STEERING WHEEL... right in the driver's lap.
- ③ NATURAL BACK SUPPORT... adjustable for maximum comfort.
- ④ PROPER LEG SUPPORT... under the knees where you need it.
- ⑤ CHAIR-HEIGHT SEATS... just like you have at home.
- ⑥ "AIR-O-RIDE" CUSHIONS... adjustable to weight of driver and road conditions.

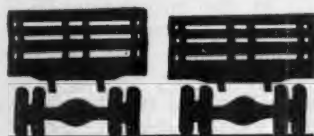
⑦ 7-INCH SEAT ADJUSTMENT... with safe, convenient hand control.

ALL THIS...
and more... with the **NEW DODGE**

REALLY NEW!

NEW Stakes

... with lower loading heights



OLD

NEW

Note the lower loading height of these new "Job-Rated" Stakes. Available in conventional and cab-over-engine models, and with 7½, 9, 12 and 14-foot bodies. Longer service is assured by sturdier construction, featuring steel longitudinal sills, not wood.

NEW Pick-ups

... bigger, easier to load



You have much more load space in these wider, deeper Pick-ups. Bodies are built to last longer. The floor is hardwood. Cross sills are steel. Side panels are one piece. Available in 6½, 7½ and 9-foot body lengths.

NEW Panels

... high, wide and handsome



NEW HEIGHT!

Florists, dry cleaners and others will appreciate the new inside height (54½ inches). Rear doors, too, are especially high (45¼ inches) ... supported by wide pillars.

NEW WIDTH!

They're 62 inches wide inside! Skid strips are welded to the sub-floor. This adds to the weather- and dust-sealing feature of these bodies.



NEW LENGTH!

Linoleum, rugs, etc., are easily accommodated (interior—85 inches long). Total load space is 155 cu. ft. Steel roofs add strength, improve appearance.

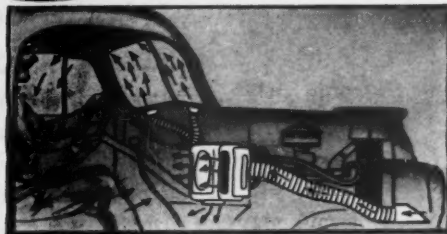
NEW "Pilot-House" Cabs

with all 'round vision

Note the tremendously increased vision of these cabs. Windshields and windows are higher and wider. New rear quarter windows add still more to vision, and to safety.

With this increased glass area throughout, you get "Pilot-House" vision ... in all directions. With welded all-steel construction, they're the safest cabs ever built.

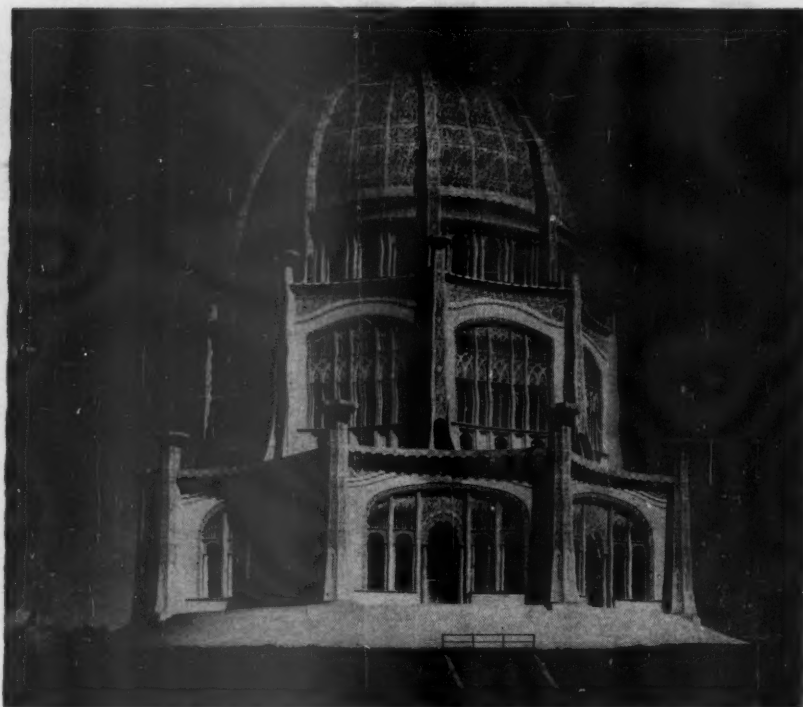
NEW All-Weather Ventilation



You drive in comfort whether it's 10° below or 100° above. Available is an ingenious combination of truck heater, defroster vents, vent windows, cowl ventilator, and a new fresh air intake from behind the front grille. It's the finest "All-Weather" heating and ventilating system ever installed in a truck cab.

"Job-Rated" TRUCKS

Now on Display
SEE YOUR
DODGE DEALER



Beauty to the Top of Its Gleaming White Dome with CONCRETE

IN the hands of skillful architects and trained engineers, concrete, the versatile structural plastic, provides the beauty of a Bahá'í Temple, and the strength for towering dams and for highways which carry the nation's heaviest traffic.

HUNDREDS OF USES

Concrete has a hundred uses on farms and in cities. It builds fire-safe, weather-resistant farm and industrial buildings, attractive homes, apartments, hospitals and schools.

CONCRETE FOR LOW ANNUAL COST

With all its advantages of beauty, firesafety, rugged strength and weather-resistance, concrete gives *low annual cost*—the true measure of economy in construction.

We will gladly cooperate with your architects or engineers in securing all the advantages of concrete for your future construction.

Bahá'í Temple, Wilmette, Ill., exemplifies the architectural beauty which can be obtained with concrete. Concrete for exposed surfaces was precast from white crystalline quartz aggregate and white portland cement. Louis J. Bourgeois was the architect.

PORTLAND CEMENT ASSOCIATION

Dept. 1b-12, 33 W. Grand Ave., Chicago 10, Illinois

A national organization to improve and extend the uses of concrete
... through scientific research and engineering field work

expected to start Feb. 1. Prime Mover's price: \$500.

• **War Record**—Bell Aircraft put out nearly 13,000 fighters and training planes during World War II. It had two plants in operation at Buffalo, N. Y., and another at nearby Niagara Falls.

The company assembled more than 600 B-29's in the huge plant which it operated for the government at Marietta, Ga. Bell's ordnance division at Burlington, Vt., developed specialized equipment that was used in aircraft guns.

• **Peace Hedge**—When military orders were canceled in 1945, Bell was not caught flatfooted. Although it had never been in the civilian-plane field, the company had been experimenting with helicopters since 1941. In that year Arthur M. Young, who had been working on this type of aircraft independently, showed movies of experimental helicopter models in flight to president Lawrence D. Bell (cover). Bell asked Young to continue his work for the company; set him up in a small shop at Buffalo.

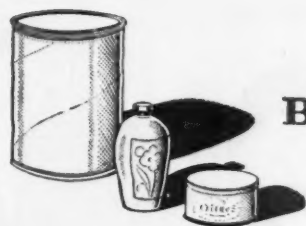
Bell saw to it that the company's helicopter program was pushed ahead during the war years. The company has now been producing helicopters for commercial use for about a year (BW—Jan. 25 '47, p21). These rotary wing aircraft have many uses. Among them: dusting and spraying insects, fungi, and weeds; forestry, geological, and game surveys; fire fighting and rescue work; mail delivery; patrol of power and pipelines.

Bell also does experimental work in aircraft for the government, including the rocket-propelled XS-1 and guided missiles.

• **Nonaviation Work**—This aeronautical work hasn't been enough to keep the company busy at its Niagara Falls plant, the only one it now operates. So it is turning out stampings on a large scale for Chevrolet and for Colonial Radio. An assembly job on Kitchen Kraft automatic dishwashers is still in the talking stage.

Bell also turned out motors for the Graham-Paige Rototiller at its Burlington (Vt.) plant, which is now being sold to General Electric. When this program languished, the company cast about for something new. Engineers hadn't been able to find any new use for a small motor that Bell was equipped to make until Lawrence Bell remarked: "It seems there's nothing without a motor these days, except the wheelbarrow."

Bell and consulting engineer Robert Woods immediately realized they had a new idea. The result was the Prime Mover. Bell calls it the first radical change in the wheelbarrow in 4,000 years.



Bottles or drums...



Cans or jars...

**Fill any of them with this new kind of
filling machine for powdered products**

No matter what sort of powdered or granular product you make... no matter what type or size of container you use... a General Mills Vacuum Filling Machine will probably fill it faster, cheaper, more accurately.

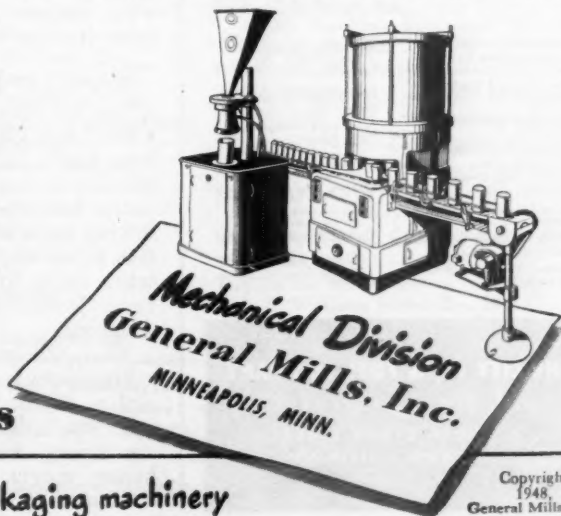
The material isn't forced or shaken into the container... it's drawn in, without separating mixed powders, by an automatically controlled vacuum in the container itself.

So swift is the vacuum cycle that the filling of 300 one-pound containers a minute is not at all unusual. So sure is the vacuum control that one-pound containers are filled to within plus or minus a fraction of an ounce. So positive is the vacuum action that all the material goes into the container. None escapes to create clouds of dust in the filling room.

To get more information about how these unusual new General Mills Vacuum Filling Machines can solve your

specific filling problem, just drop a line to Dept. A, Mechanical Division, General Mills, Inc., 1620 Central Avenue, Minneapolis 13, Minnesota.

SALES OFFICES IN PRINCIPAL CITIES



**General Mills
Vacuum Filling Machines**

Made by one of the world's largest users of packaging machinery

Copyright
1948,
General Mills, Inc.



**"CITY ICE"
COLD STORAGE
EXPERTS KNOW
THEIR A B C's!**

"City Ice" Cold Storage experts are "past-masters" at this business of providing proper cold storage for all types of perishables. All their expert knowledge and advice is at your service for marketing, distribution, handling and shipping in one or all of the key consuming areas served by "City Ice" Cold Storage System.

Seaboard Terminal & Refrigeration Co.
Jersey City, N. J.

The City Ice & Fuel Co.
Hornell, N. Y.

Federal Cold Storage Co.
Pittsburgh, Pa.

Federal Cold Storage Co.
Cleveland, Ohio

Federal Cold Storage Co.
Columbus, Ohio

Polar Service Company
Decatur, Ill.

North American Cold Storage
National Stock Yards, Ill.

Federal Cold Storage Co.
St. Louis, Mo.

Springfield Ice & Refrigerating Co.
Springfield, Mo.

Federal Cold Storage Co.
Kansas City, Kans.

Tulsa Cold Storage Co.
Tulsa, Okla.

Mound City Ice & Cold Storage Co.
St. Louis, Mo.

Galveston Ice & Cold Storage Co.
Galveston, Tex.

Crystal Ice & Cold Storage Co.
Phoenix, Ariz.

THE CITY ICE & FUEL COMPANY

Cold Storage Division

33 SOUTH CLARK STREET
CHICAGO 3, ILLINOIS



MARKETING



MEN WHO MADE GOOD on their own: R. N. W. Harris (left), president of booming Toni Co., and his brother Irving, executive vice-president, now have . . .

Gillette Begins to Diversify

Pays \$20-million for highly successful producer of home permanent wave sets, thereby becomes fairly "depression-proof." Reason: In hard times, women do hair at home more than now.

Suppose you made a line of products that:

- Sells only to men;
- Holds the No. 1 sales position in its field, but requires constant, extensive advertising to maintain that rank—and price;
- Has plenty of competition which could become nettling in less prosperous times.

How would you buttress this setup against the future?

• **Head and Chin**—Last week the Gillette Safety Razor Co. answered the question by buying the fabulously successful Toni Co. for \$20-million. Most striking angle of Gillette's purchase is that it has acquired a business which caters solely to women (Toni makes home permanent wave sets, "creme" shampoo).

Thus Gillette's stake in tonsorial splendor now covers the female head as well as the male chin; it has a best-seller for both sexes, for both of the significantly hirsute portions of the human noggin. More than that, the deal seems to make Gillette pretty de-

pression-proof. A man might switch to cheaper razor blades in bad times, but women would be more inclined than ever to shun beauty parlors and do their hair repairs at home.

• **Toni's Reasons**—Why Toni, for whom woman's crown of glory has brought a crown of profits (about \$5-million last year), sold out is another question. In the absence of official information, these are the most likely answers:

• Gillette's purchase price looks liberal enough. All told, Toni's owners get \$20-million for a business that's grossing about the same amount. Thus purchase price vis-a-vis the gross is in a 1-to-1 ratio. Contrast that with Food King Nathan Cummings' latest deal (page 47). He paid \$18-million for a company grossing around \$75-million—a ratio of only 1-to-4. True, such a comparison isn't entirely valid; but it does show that Toni fared pretty well in the bargain.

• Toni gets the benefit of Gillette's foreign distribution setup.

• Toni becomes identified with the vast

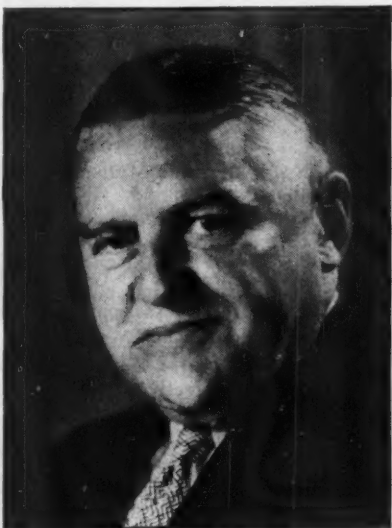
resources of Gillette—a protection, in turn, for its own future.

- Toni's management continues as is.
- Toni's prior owners appear to get a tax advantage by selling.
- **Spectacular Career**—The Toni Co.'s career has been short and spectacular. It was started in 1944 by R. Neison Harris and Irving B. Harris, who put one of the first cream waves on the market. The boys tossed the cream into a kit containing a handful of curlers and a neutralizer (a chemical which removes the waving compound). From their headquarters in St. Paul, they put the kit in stores throughout the state, to retail for \$1.25.

The idea caught on fast—partly because it was perfectly timed. During the war, beauty operators went into better-paying war industries. Some 20% to 25% of the beauty shops in the U.S. had to shut down; in the rest it was hard to get appointments with hairdressers who were sometimes poorly trained anyway. To most women, the cheap, convenient home kits were just the answer they needed.

- **Continued Growth**—Since the war, sales have continued to grow by leaps and bounds. Beauty shop operators have become so alarmed they have even tried to have home-waving outlawed.

Of the myriad companies that went after the market, Toni is well in the lead (it claims to have 90% of the home-permanent business). By 1946, it had national distribution; now its own sales force of 100 men calls on retail outlets every 90 days. Net profits for the first 10 months of the current fiscal period are estimated at \$4-million. That compares with \$701,995 for the same fiscal period last year. Toni plans to expand its business further this year by adding several new products and ex-



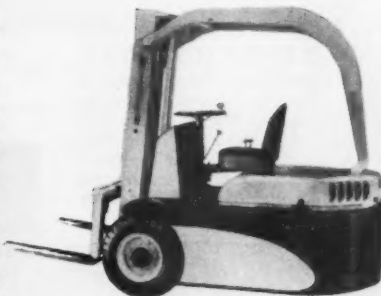
... A NEW BOSS, Joseph P. Spang, Jr., president of the Gillette Safety Razor Co.

LIFT YOUR PROFITS with a HYSTER

3 REASONS FOR BUYING A HYSTER LIFT TRUCK NOW:

1. You can get current delivery.
2. Your Hyster distributor specializes on lift truck service—has parts and factory trained mechanics.
3. Pneumatic tires on all 7 Hyster models from 2000 lbs. to 30,000 lbs. capacity.

Model	Capacity in Lbs.
Hyster "20" Fork Type	2,000
Hyster "40" Fork Type	4,000
Hyster "75" Fork Type	7,500
Hyster "150" Fork Type	15,000
Hyster Karry Crane	10,000
Hyster "M" Straddle Truck . . .	12,000
Hyster "MH" Straddle Truck . .	30,000



HYSTER "40" — 4000 pounds capacity. Handles 7 out of 10 materials handling jobs. Fast. High lift. Heavy duty car loader.

Hyster moves fast—stacks high—performs surely and smoothly. Operating and maintenance costs are extremely low. Pneumatic tires save floors, are easier on loads, can go anywhere. See your nearest Hyster distributor. Write for catalogs.

HYSTER COMPANY

Three Factories

2907 N. E. CLACKAMAS, PORTLAND 8, OREGON
1807 NORTH ADAMS ST., PEORIA 1, ILLINOIS
1010-07 MEYERS STREET, DANVILLE, ILLINOIS



See all Hyster models
at Booth 319 and 331,
Materials Handling Show,
Cleveland Auditorium,
January 12-16.

SEE YOUR HYSTER DISTRIBUTOR FOR CURRENT DELIVERY

ALASKA—Northern Commercial Co.
BROOKLYN, N.Y.—A. S. Rampoll
BUFFALO, N.Y.

Rapids Handling Equipment Co.
CALGARY, ALTA.

A. R. Williams Machy. Western, Ltd.
CHICAGO, ILL.—Hyster Company
CINCINNATI, O.

Oral T. Carter & Associates
CLEVELAND, O.—Morrison Company
DALLAS, TEX.—C. H. Collier Co.

DENVER, COLO.—Paul Fitzgerald
DETROIT, MICH.—Bentley & Hyde
GRAND RAPIDS, MICH.—Bentley & Hyde
HALIFAX, NOVA SCOTIA

A. R. Williams Machy. Co., Ltd.
HONOLULU, T. H.

Electric Steel Foundry Co.
INDIANAPOLIS, IND.
Central Rubber & Supply Co.
JACKSONVILLE, FLA.

L. S. Teague Equipment Co.
KANSAS CITY, MO.

Industrial Power Equipment Co.
LOS ANGELES, CALIF.—Hyster Company
LOUISVILLE, KY.—Embry Brothers, Inc.
MILWAUKEE, WIS.—Hyster Company
MINNEAPOLIS, MINN.—W. S. Nott Co.
MOBILE, ALA.—S & T Equipment Co., Inc.

MONTREAL, P. Q.

A. R. Williams Machy. Co., Ltd.
NEW ORLEANS, LA.

Hyster Company of Louisiana, Inc.
NEW ROCHELLE, N.Y.

Eastern Industrial Sales Co.
OTTAWA, ONT.

A. R. Williams Machy. Co., Ltd.
PHILADELPHIA, PA.

Rapids Handling Equipment Co. of
Philadelphia, Inc.

PHOENIX, ARIZ.—Equipment Sales Co.
PITTSBURGH, PA.—Equipco Sales Co.

PORTLAND, ORE.—Hyster Sales Co.
ST. JOHNS, N. F.—City Service Co., Ltd.

ST. LOUIS, MO.—Wharton L. Peters
SALT LAKE CITY, UTAH

Arnold Machinery Co.
SAN FRANCISCO, CALIF.—Hyster Co.

SEATTLE, WASH.—Hyster Co.
TORONTO, ONT.

A. R. Williams Mchy. Co., Ltd.
VANCOUVER, B.C.

A. R. Williams Machy. Western, Ltd.
VICTORIA, B.C.

A. R. Williams Machy. Western, Ltd.
WINNIPEG, MAN.

A. R. Williams Machy. Western, Ltd.
YUKON TER.—Northern Commercial Co.

In addition to above, Hyster Export Dealers are located in 30 foreign countries.

HOW PRODUCTION OF ROLLER CHAIN PINS JUMPED 300%

THE UNION CHAIN AND MANUFACTURING CO., Sandusky, Ohio, sprocket chain manufacturers, had difficulty keeping roller chain pin production in pace with the rest of the chain manufacturing operation. A bottle-neck lay in the end softening operation of the case hardened chain pins.



E. B. Pedersen, Airco Technical Sales Representative, suggested oxyacetylene flame softening, and with Union Chain engineers, devised an automatic flame softening unit. An Airco 9903 torch with specially designed extensions was used. A No. 2 tip, placed about 1½" away from the ⅝" diameter pin, softens the cottered end to a depth of ⅜". A No. 1

tip, somewhat closer, softens the other end to a depth of ⅜". A subsequent operation skins the head on the softened end of the case hardened pin.

With the exception of feeding pins into the chute, the unit is completely automatic, depth of softness is accurately controlled, and pin production has increased 300%.

Technical Sales Service—though not a packaged commodity—is as readily available to all industry as any Airco process or product. If you have a metal working problem, ask to have a Technical Sales Division man call. Address Department BW-8085, Air Reduction, 60 East 42nd Street, New York 17, N. Y. In Texas: Magnolia Airco Gas Products Co., Houston 1, Texas. On West Coast: Air Reduction Pacific Company, San Francisco 4, Calif.



AIR REDUCTION

Offices in All Principal Cities

TECHNICAL SALES SERVICE — ANOTHER AIRCO PLUS-VALUE FOR CUSTOMERS

panding its advertising budget to \$6-million.

One interesting point: Gillette is fortifying itself against a depression at a time when its business is roaring along at top speed. Net sales for 1947 ran over \$50-million.

FTC DILEMMA

The Federal Trade Commission this week is trying to find out how it must interpret the Robinson-Patman law. FTC has been operating on the basis that quantity discounts must be justified by differences in cost of manufacture, sale, or delivery. But a recent court decision says, in effect, that quantity discounts can be legally based on common sense, and that cost differences need not enter in.

The latter decision was handed down by the Seventh Circuit Court of Appeals in Chicago last summer (BW-Jul. 5'47,p68). The court set aside an FTC order (1) limiting Morton Salt Co. to quantity discounts not exceeding 5¢ a case and (2) prohibiting sales to any retailer for less than Morton charged wholesalers.

Now FTC has asked the U. S. Supreme Court to review the decision. The FTC argument: The R-P act flatly prohibits price discrimination, except when quantity discounts are based on differences in cost.

This court decision was directly opposed to one made in 1939 by the Sixth Circuit Court of Appeals, in a case involving the Goodyear Tire & Rubber Co. It had interpreted the R-P act as prohibiting price differences based merely on quantity and not justified by differences in cost. The Supreme Court refused to rehear this case.

FARMER'S PROGRAM

Industry is well aware that the farmer's income is higher now than it has been at any time since World War I (BW-Dec.20'47,p61). Hence many a manufacturer plans to cultivate this market more deeply than ever before.

Last week the Ford Motor Co. got the option on a new radio show with just that market in mind. The company puts it on for the Ford Dealers of America—each of whom pays for the show over the station in his area. The program, called "RFD America," had made its bow over a Mutual Broadcasting Co. network of 160 stations on Dec. 4. Beamed directly at the farmers, it is primarily a farmer's quiz show.

Owner and producer of the program is Lester G. Cowan (also producer of "Quiz Kids"). Ford has the rights to the program for all Mutual stations that will take it. But if a local Ford dealer doesn't want it, the show is available to other sponsors in that area.

Grocery Deal

Consolidated Grocers' head buys out Rosenberg Bros., of San Francisco. Trade wonders where two operations will mesh.

The hand of Nathan Cummings is reaching farther into the food business. Recently Cummings, the head of the country's biggest wholesale grocery operation (Consolidated Grocers Corp., Chicago), announced that he had made another purchase: He bought out Rosenberg Bros. & Co. of San Francisco, world's biggest independent operator in dried fruits and tree nuts. This is Cummings' first outright purchase of a grocery concern that isn't primarily a distributor.

Cummings carefully stated that he bought Rosenberg as a part of Cummings Corp., of which he is owner and president. In other words, Rosenberg isn't to be part of the Consolidated empire.

• **Cost**—Cummings paid \$18-million for Rosenberg. He becomes president of the company. Arthur C. Oppenheimer, for many years Rosenberg's president and general manager, will stay on as general manager and be chairman of the board.

Cummings will push the company's plans for repackaging its products and speeding up its operations. Rosenberg sales were \$75,955,450 for the year



HEADS FUR FIRM

Howard A. Fox, new president of I. J. Fox, Inc., succeeds his father as head of a retail fur business said to be the largest in the world. The late I. J. Fox died on Dec. 17.

Howard Fox joined the company at the end of the war after serving four years as a Navy fighter pilot. Since then he has been a vice-president.

The Symbol of QUALITY in Grinding Wheels . . .

NORTON ABRASIVES

THIS symbol means a wheel made in the world's largest grinding wheel manufacturing plant.

It means a wheel made by skilled workers — 10% of them Norton employees for 25 years or more.

It means a wheel backed by the most extensive research facilities in the grinding wheel industry.

It means a wheel especially suited to each of your grinding jobs — expertly selected by one of the country-wide staff of Norton abrasive engineers.

It means lowest grinding costs for you.

NORTON COMPANY, WORCESTER 6, MASS.

(Behr-Manning, Troy, N. Y. is a Norton Division)



ABRASIVES — GRINDING WHEELS — GRINDING AND LAPPING MACHINES
REFRACTORIES — POROUS MEDIUMS — NON-SLIP FLOORS — NORBIDE PRODUCTS
LABELING MACHINES — BEHR-MANNING DIVISION COATED ABRASIVES AND SHARPENING STONES



HOW TO RUN CIRCLES AROUND COMPETITION

In most plants, handling costs are too high. Reduce handling costs and you reduce production costs . . . reduce production costs and you increase profit margins . . . and increased profit margins always give you a head start on competition.

Let's go back to the beginning: You can reduce handling costs to a minimum with a Towmotor Fork Lift Truck, designed for 24-hour, full-power service . . . lifting, transporting and stacking all types of materials and products throughout production and distribution.

There's a Towmotor Fork Lift Truck or Accessory that can bring your handling costs down. Send for a Pocket Catalog.

Send for Special Bulletins Describing the Towmotor
UNLOADER • UPENDER • SCOOP • CRANE ARM • RAM
EXTENSION FORKS • EXTENSION BACKREST
OVERHEAD GUARD

TOWMOTOR CORPORATION
DIVISION 2, 1226 EAST 152ND STREET, CLEVELAND 10, OHIO



TOWMOTOR

**FORK LIFT TRUCKS
and TRACTORS**

RECEIVING • PROCESSING • STORAGE • DISTRIBUTION

ended May 31, 1947. Aside from dried fruits and edible nuts, the company handles California rice, honey, and dried beans. Its business runs well ahead of the big co-ops in these fields.

• **FTC Interest**—How big a factor Cummings is in the food field can be gauged from the attention the Federal Trade Commission has paid him. Right after the beginnings of Consolidated, FTC issued a complaint against the company, charging unlawful acquisition of capital stock of three of its major competitors in the wholesale grocery field.

Consolidated met the complaint by returning the stock to the three corporations—Western Grocer Co. (Marshalltown, Iowa); Reid Murdoch & Co. (Chicago); Dannemiller Grocery Co. (Canton, Ohio). These in turn gave Consolidated unconditional conveyances and transfers of their assets. Because Section 7 of the Clayton act says nothing about assets, the FTC was thus forced to dismiss its complaint (BW—Feb. 15 '47, p75).

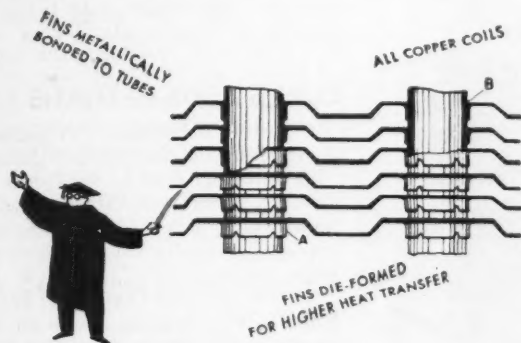
• **Sales Boom**—Currently, the Consolidated empire is booming. The company had net sales of \$141,690,069 for the year ended June 30, 1947. Almost half of its total sales are said to be from its own manufactured products. These include those sold under its own Jack Sprat label. Most of the grocery products that the company makes or converts are canned foods.

From the days when he owned C. D. Kenny Co., Baltimore wholesale grocery house, and nucleus of the present big combination, Cummings' philosophy has been to build up the independent retailer. That means giving him bargains in nationally advertised food products, selling him plenty of Consolidated's own brands. The stress in the latter case is on the company's quality canned foods. The retailer can sell these at a higher profit margin, thus offset the slim margins he gets from sales of branded products (BW—Feb. 23 '46, p80).

• **Widening a Market**—In recent weeks Consolidated Grocers has been toying with the idea of expanding its Jack Sprat line. The aim: to build a wider market through brand identification in consumer minds. The method: Get retailers in areas which Consolidated serves to go into a new type of voluntary chain organization, probably to be named Jack Sprat stores. Such a chain could total from 10,000 to 25,000 stores. That would upset some apperearts in the big voluntary chain field; and it would make the big corporate chains look to another source of competition.

Where the Rosenberg operation will fit into the Cummings' Consolidated operation is a matter of trade conjecture at the moment. Rosenberg has packed without favor for big chains and wholesalers alike. The new Rosenberg organization will want to preserve the

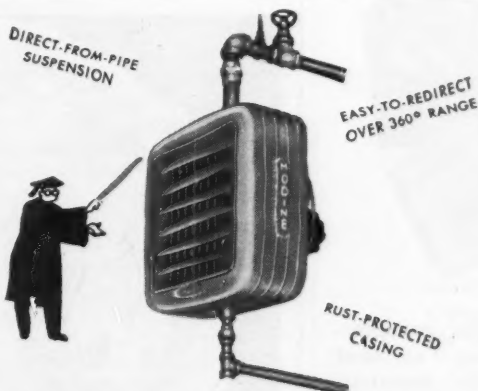
Here's Today's Lesson on Tomorrow's Unit Heaters!



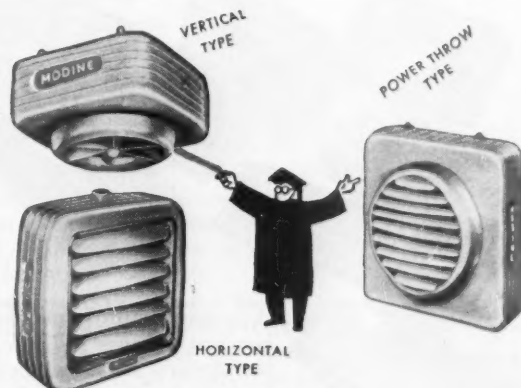
1. Consider construction—Modine gives you a metallic bond which permanently seals the flanged collars of fins (A) to tubes (B) . . . prevents corrosion . . . assures you extra years of high heat transfer efficiency, lasting performance satisfaction.



2. Take a peek at performance—Modine scientifically planned heat distribution gives you heat where and when you want it. You get the exact temperatures you want because Modine air velocities and air volumes are carefully related to your needs.



3. Remember suspension—Patented center supply and return connections mean you can suspend Modine Horizontal Units directly from the supply line with savings up to \$10 per unit. Complete safety. No expensive supports. No extra labor costs.



4. Measure the need—Modine's integrated unit heater line gives you 3 types with 47 basic capacities. 1) Horizontal Type for general applications. 2) Vertical Type for overhead use. 3) Power Throw Type for special high velocities.

MORAL: Move Ahead with Modine Quality!



When you buy Modine, you buy the quality unit heater that's years ahead in engineering and design. Built to meet almost all the space heating requirements of modern industrial and commercial buildings, Modines give you modern beauty, plus the finest in modern performance and construction. Get all the facts from Modine's representative listed in the "Where-to-Buy-it" section of your phone book. Or send in coupon at right.

Modine UNIT HEATERS

MODINE MANUFACTURING CO.
1508 Dekoven Ave.
Racine, Wisconsin

YES! I want all the facts about Modine's integrated Unit Heater Line. Please send me complete information.

NAME

ADDRESS

CITY STATE

For Sales-winning Packages and New Savings



Builders of the machines that wrap 80%
of America's machine-wrapped products



A package improvement is often the most effective way to lower selling costs. And, if executed by modern machine methods, the improved package can frequently be turned out at a production saving, too... That's why it pays to consult an experienced machinery manufacturer in the early stages of your planning.

As makers of the wrapping machines that handle the majority of America's machine-wrapped products, we are familiar with modern trends and the most advanced methods of producing outstanding packages economically. Of equal importance, we have the machines to do the job—over 80 models, most of which can be adapted to numerous forms of wrapping.

So why not do as so many other manufacturers are doing today? Put your problem up to "Package".

PACKAGE MACHINERY COMPANY, Springfield 7, Mass.
NEW YORK CHICAGO CLEVELAND ATLANTA DENVER
LOS ANGELES SAN FRANCISCO SEATTLE TORONTO

PACKAGE MACHINERY COMPANY

Over a Quarter Billion Packages per day are wrapped on our Machines

wide market enjoyed by the original company. After the sale a Rosenberg bulletin notified all company brokers here and abroad that sales policies are unchanged.

• **New Giant?**—But some day the Cummings genius for integration might well pull Rosenberg into a combined manufacturing operation, probably with some of Consolidated's present big canning facilities. The result could be another giant in the food processing field.

CURTIS ADDS PATTERNS

Country Gentleman magazine is going into the dress-pattern business. That announcement by the Curtis Publishing Co. last week caused raised eyebrows among people who take the magazine's title literally. But it was no paradox.

For the Country Gentleman has long had a section, totaling about one-third of the book, which it calls "Country Gentlewoman." In publishing circles those pages are considered a big bulwark of the magazine's 2-million circulation.

Patterns (for 25¢) of models shown each month will be offered starting with the January issue. The decision stemmed



STYLED FOR SHOPPERS

Collector's item for the bag-saving housewife is this new carry-home package. Put out by Dan River Mills, the container holds two bed sheets, has a slip-out handle for easy carrying. Floral designs in pastels represent the eight different brand names of the company's sheets and pillow cases. The package will save wrapping time in the stores, make an attractive front for counter displays.

from the volume of mail that Fashion Editor Mary Grace Ramey got from farm and ranch women. These inquiries also served as a sample poll on the types of clothing which their readers like. Patterns are manufactured by Duart Pattern Co.

This is the first time since Curtis took over the 100-year-old Country Gentleman in 1911 that patterns have been offered. But it is not the rank departure from Curtis policy that Holiday's liquor advertisements were (BW-Oct. 11 '47, p66). Ladies Home Journal had a pattern department years ago.

Country Gentleman is third runner in the Curtis stable, comparing with Saturday Evening Post's 4-million circulation, the Journal's 5-million, and Holiday's 800,000.

AD COMBINATIONS BACK

Four leading food industry organizations plan to beat January retail sales slowdowns through a joint operation. They will combine their advertising and promotion resources in campaigns pushing their products. These programs will include more than 95-million newspaper and magazine advertising impressions, most of them in color, plus coast-to-coast radio coverage.

Participants: Pillsbury Mills, Minneapolis, which will push its enriched flour in a "Boston Peach Cream Dessert"; California Cling Peach Advisory Board, featuring canned cling peaches; the Can Manufacturers Institute, stressing a whole meal of canned foods; and the American Meat Institute, pushing canned corned beef hash.

Pillsbury and the Cling Peach Board will combine forces in newspaper and magazine advertising, mostly in color, in January and February. The Can Manufacturers' Institute will use four-color magazine ads in February. The American Meat Institute will beam the meal combination on Fred Waring's program over 161 NBC stations.

The program signals the return of advertising combinations in the food industry. This practice went out of favor during war years, but the return of competition among branded foods is beginning to bring it back.

FIELD-HILTON DEAL

Marshall Field & Co. has contracted to supply the entire Hilton Hotel chain with all its furnishings and general supplies. The agreement, announced recently, provides for Field's contract division to buy for the 18 Hilton Hotels virtually every piece of equipment they use. Included: linens, bedding, carpets, furniture, china, silverware, draperies, soap, kitchen gear, etc. Only foods and beverages used in the hotels will not be bought by Field's.



ONLY 3 OPERATIONS...

WHERE 11 WERE NEEDED BEFORE

1500-ton H-P-M FASTRVERSE Press installed at Fairbanks, Morse & Co., cut steel wheel production cost.

From sheet stock to finished railroad wheels in only 3 operations! That's the record of the H-P-M 1500-ton FASTRVERSE Press installed at Fairbanks, Morse & Co., Three Rivers, Michigan. These steel wheels for railroad work cars previously required 11 separate steps to complete. Their H-P-M Press reduced operations to 3! Look what else this H-P-M Press did for Fairbanks-Morse!

• Reduced man power requirements • Reduced production costs • Reduced maintenance costs • Reduced floor space.

Look at H-P-M's production record on this extremely heavy stamping job.

• First operation—100 per hour • Second operation—129 per hour • Third operation—144 per hour.

All these advantages, plus the fact that Fairbanks-Morse has experienced no down time since the H-P-M Press was installed six years ago, clearly demonstrate the ability of H-P-M All-Hydraulic Presses to tackle any metal-working job... whether it's difficult or routine. H-P-M Presses will cut your costs, too. Write today.

THE HYDRAULIC PRESS MANUFACTURING CO.

1000 Marion Road • Mount Gilead, Ohio, U. S. A.
Branch Offices in New York, Cincinnati, Cleveland, Columbus, O., Detroit, Pittsburgh and Chicago. Representatives in other principal cities.
Export Dept: 500 Fifth Avenue, New York, N. Y. Cable—"Hydraulic"

Bulletin 4706 shows how H-P-M FASTRVERSE Presses save you time and money. Write today for your copy.




All-Hydraulic

FASTRVERSE PRESSES

REVOLUTIONIZING PRODUCTION WITH HYDRAULICS SINCE 1877



A Handful of Power for Grinding

● This Keller Rotary Grinder is just one of a complete line of pneumatic grinders designed for continuous high-speed production, where a high rate of metal removal is required.

Sizes available will accommodate all classes of work requiring a portable grinder, including grinding iron and steel castings, billets, large dies, acetylene and electric welds, automobile bodies and fenders, and removing paint, scale, and rust with wire brushes.

Precision ball-bearing spindle mountings meet all radial and thrust load conditions. Governor control insures constant speed with increased power under load. Write for complete details.



KELLER
Pneumatic Tools

KELLER TOOL COMPANY
4801 Harbor Street Grand Haven, Michigan

PRODUCTION



MANMADE LIGHTNING strikes plane, leaves occupants unharmed. Greater civilian safety will result from Air Force experiments at Minneapolis' Transients Research Institute

Reconverting War Research

The military need for new offensive and defensive weapons resulted in a flood of new materials, new products, new techniques. Now most of these are being turned to peacetime use.

What has happened to the numerous techniques, materials, and products developed for war use? Has industry been able to convert wartime developmental research to peacetime use?

● **Affirmative**—The answer is "yes, in most cases." Industry has been able to capitalize on the huge federal sums spent to insure adequate weapons for victory. Many of these new things would have become available over a period of time, if war had not come along. But war put the heat on scientists, forced them to explore every known avenue of science for possible offensive and defensive use. With war, too, industry got the research benefit of government money, was drawn into many new fields that in peace would have been economically unsound.

Thus, although war puts the brakes on fundamental research (BW—Oct. 18'47,p68), it does spur the kind of developmental activity that can be beneficial in the long run.

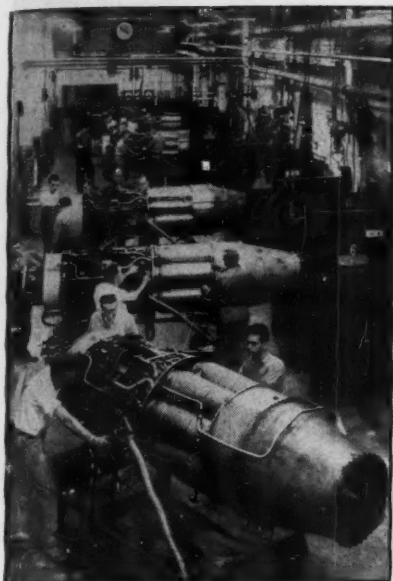
● **Survey**—As 1947 ended, both industry and government could point to a long list of "research reconversion" accomplishments. This week Product Engineering (a McGraw-Hill publication) released the results of a comprehensive

survey on peacetime applications of war-born products. Highlighted are atomic benefits, materials progress, electronic advances, and medical innovation.

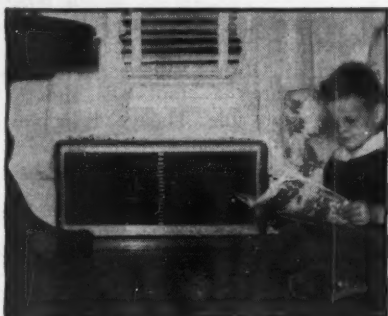
Atomic Research

By far the biggest of wartime research programs was the one that led to splitting the atom. Of its peacetime results, the best publicized has been the development and use of radioactive isotopes of common elements—byproducts of the atomic pile (BW—Dec.6'47,p56). Minute quantities of various materials can be "tagged" with these radioactive substances; they can then be traced by using a Geiger counter or a similar device.

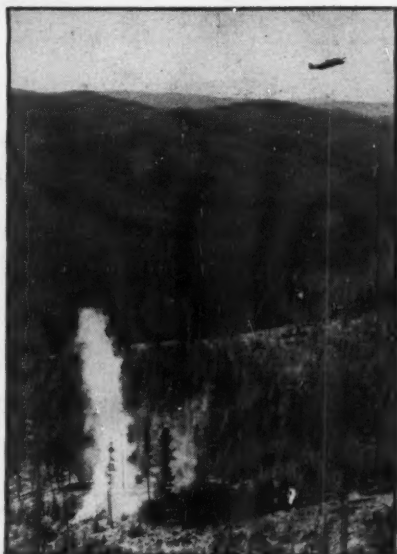
● **Two Fields**—These isotopes are in use today in two major fields—medical and industrial. In medicine they are used to trace the movement of various chemicals and substances through the body, and to treat some diseases. For instance: Radio-iron is used to "tag" blood cells for the study of anemia; radio-carbon to tag a cancer-producing body chemical; radio-iodine to treat cancer of the thyroid; radio-gold and



G. E. JET engines for Air Force point way to gas turbines for marine and railroad use

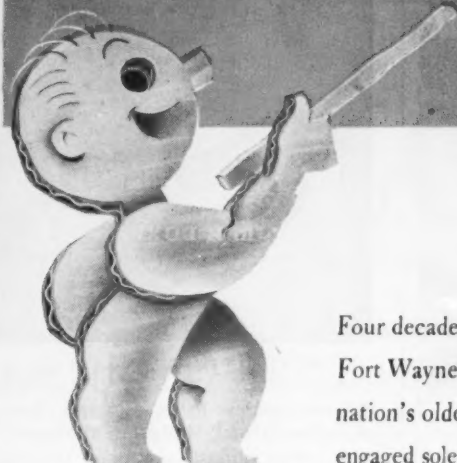


BOMBER HEATER turns into house warmer in Stewart-Warner's adaptation



PROXIMITY FUSE enables fire fighters to explode water bombs at height they want

EXPERIENCE + SPECIALIZATION =



Four decades of experience stand back of Fort Wayne's eminence as one of the nation's oldest and largest manufacturers engaged solely in the design and production

of corrugated fibre boxes and corrugated paper products.

Today this fund of experience is an invaluable asset in our one specialized function—the manufacture of containers and corrugated paper products that deliver laboratory controlled quality to the shippers of America. Specialized knowledge is applied daily in achieving controlled uniformity of container strength, materials and performance... in arriving at the one best solution to any and every container problem of the modern shipper.

CORRUGATED FIBRE BOXES
CORRUGATED PAPER PRODUCTS

Fort Wayne CORRUGATED PAPER COMPANY

General Offices:
Fort Wayne 1, Indiana

Plants:
Rochester, New York
Chicago, Illinois
Pittsburgh, Pennsylvania
Hartford City, Indiana

Mills:
Hartford City, Indiana
Vincennes, Indiana

Sales Offices:

Chicago, Ill. • Pittsburgh, Penna. • New York, N. Y. • Rochester, N. Y.
Buffalo, N. Y. • Jamestown, N. Y. • York, Penna. • Cleveland, Ohio • Lima, Ohio
Dayton, Ohio • Cincinnati, Ohio • Muncie, Ind. • Indianapolis, Ind.

	FABRICATION RATING											
	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC
120												
110												
100												
90												
80												



THE SPIKES *Dig In* FOR *Better Traction*



Campbell **Lug-Reinforced Tire Chains** **give better traction** **and longer life!**

Like the spikes on golf shoes, the exclusive, patented* saw-tooth lugs of Campbell Lug-Reinforced Chains dig right into ice and snow for the grip that means quick starts and safe stops—they put an end to dangerous slip and skid. The tough, long-wearing steel and one-piece construction mean increased mileage. This winter, drive safely with Campbell Lug-Reinforced Tire Chains! International Chain & Mfg. Company, York, Pennsylvania.



*U. S. Pat. No. 2,093,547—Canadian Pat. No. 223,568



PENICILLIN, developed in war, is now mass produced by Pfizer for civilians

radio-manganese to treat chronic forms of leukemia and Hodgkin's disease.

A typical industrial use: in studying the effect of friction. A tiny quantity of radioactive steel is incorporated in one of two rubbing surfaces—a bearing for instance (BW—Mar. 8 '47, p. 28); the tracers can detect the transfer of as little as one-millionth of an ounce of metal from one surface to the other. Other industrial uses: to study oil-field underground structures; to analyze the molecular structure of alloys; to measure the sulphur and phosphorous content of iron and steel.

• **Tools**—But postwar benefits of atomic research are by no means limited to isotopes. Machines and methods used in the atomic program are finding postwar applications, too. An "extremely high-vacuum" pump was developed by Manhattan District engineers; it produces a state of emptiness hitherto thought impossible. Today it is helping to develop new coating techniques for plastics and metals, and to produce better vacuum tubes and cables for high-frequency radio and television equipment.

An improved type of leak-detector was developed by the atomic researchers



BABY LUNG, Wright Field device to revive air pilots, finds new use for polio victims



TINY TUBE for proximity fuse is adapted for Sylvania's cigarette-pack-size radio

YOU furnish the steel

If you can supply us with 12 to 24 gauge sheet steel, we will supply you pound for pound with any selection of Lyon standard products now in production.

Or, we will manufacture to your specifications, in Lyon production run quantities, assemblies, sub-assemblies, or parts in gauges No. 8 and lighter up to No. 30.

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| • Wood Working Benches | • Hanging Cabinets | • Folding Chairs | • Work Benches | • Bar Racks | • Hopper Bins | • Desks | • Sorting Files |
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Reasons Why

THE Finnell DRY SCRUBBER

CLEANS FASTER . . . More Thoroughly

A unique combination of labor-saving features is responsible for the greater speed and thoroughness with which the *Finnell Dry Scrubber* cleans grease-caked floors.

Equipped with two powerful scarifying brushes, this *Finnell* digs through and quickly loosens the most stubborn coatings of dirt, oil, grease, and shavings—as the special couplings adjust brushes to floor irregularities, to get into indentations and grooves that rigid coupling brushes would pass over and miss.

To re-sharpen the brushes of the *Finnell Dry Scrubber*, simply *flip the switch*. That reverses the motion of the brushes and re-sharpens them *automatically* . . . while working. Eliminates the need for frequent changing of brushes by hand in order to maintain a good cutting edge.

Low construction makes it easy to clean around and beneath equipment, and the adjustable handle adapts the machine to operator's height for most effective working position.

Various types and sizes of wire scarifying brushes are interchangeable in the brush rings of this *Finnell* and, with other brush rings, the machine can be used for wet scrubbing, steel-wooling, waxing, and polishing. Ruggedly constructed. Has heavy duty G. E. Motor, oversize Timken Roller Bearings, special bronze worm gears, leak-proof gear case.

For free floor survey, consultation, or literature, phone or write nearest *Finnell* branch or *Finnell System, Inc.*, 3801 East Street, Elkhart, Indiana. Canadian Office: Ottawa, Ontario.

FINNELL

Reversible Switch
re-sharpens brushes automatically

Adjustable Handle
adapts machine to operator's height

Low Gear Case
allows cleaning beneath equipment

Flexible Brushes
adjust to floor irregularities

FINNELL SYSTEM, INC.

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FLOOR-MAINTENANCE EQUIPMENT AND SUPPLIES

BRANCHES
IN ALL
PRINCIPAL
CITIES

to guard against leaks of dangerous radioactive gases. It is proving valuable to industry in checking the operation of hermetically sealed gas systems—like those in instruments and in refrigerating devices.

• **Fluorine Chemicals**—Another atomic "byproduct" was the taming of the unruly element, fluorine. For years, its compounds were known to have important potential industrial value. But they were too dangerous to work with.

Now that the atomic researchers have solved this problem, several new classes of compounds are being developed. One of these is the fluorocarbons—organic compounds of fluorine which neither burn nor react with any common chemicals. They will probably appear as superior lubricants and greases, as new plastics such as tetrafluoroethylene, in improved paints and insecticides.

New Materials

Aside from atomic energy, some of the most significant advances stemming from war work lie in the field of materials. To insure the development of a workable jet engine (picture, page 57), researchers were faced with the problem of finding new alloy materials capable of withstanding the intense heat and stresses such engines develop. Out of this work came a new set of alloys for industry: the superalloys (BW—Feb. 16 '46, p40). Such alloys contain high percentages of nickel, chromium, and cobalt, along with tungsten, molybdenum, and titanium. Besides their use in gas-turbine blades, industry can adapt such high-strength alloys to jobs on steam turbines, superchargers, and similar products.

• **Welding Electrodes**—Another example: welding of armor plate—extremely hard, heat-treated materials—was a tough proposition. Conventional welding electrodes did not produce satisfactory welds. The War Metallurgy Committee assigned the problem to various research laboratories.

Result: a new series of "ferritic" (iron-bearing) electrodes, that will find peacetime uses in the manufacture of many welded metal products. The electrodes permit the use of new "hardenable" steels in machine construction; they will help the enameled-wear industry, because it is now possible to enamel over a welded structure.

• **New Kinds of Rubber**—In the non-metal field, both rubber and plastics were improved.

Cellular rubber, used during the war to protect men in combat tanks, has remarkable cushioning properties. One peacetime use is to protect delicate instruments during shipping.

War work also made rubber—normally a nonconductor of electricity—

into a conducting material. Sheets of such rubber warm up when electricity passes through them. U. S. Rubber Co. is now promoting the use of sheets of this rubber for radiant heating elements in homes, to eliminate furnaces, pipes, and radiators. The conducting sheets, about 4 ft. square, are sandwiched between sheets of insulating material. A seven-room house could be fitted with Uskon sheets for heating for about \$1,000.

• **Plastics, Too**—One sample of plastics progress is polyethylene. When very high-frequency radio devices were being designed, there was a definite need for a plastic that was a good electrical insulator. Polyethylene was the result. The material has another useful property: It resists chemicals. So today it is used both for electrical applications and as a packaging material.

The wartime synthetic rubber program, which required great quantities of the chemical, styrene, has tremendously speeded up the application of polystyrene plastics.

To the list of materials accomplishments can be added:

• The silicone materials—half organic, half inorganic—with great heat and chemical resistance, got into commercial production during the war. These materials (BW—Mar. 29 '47, p. 47) have a big potential in the lubricating, paint, molding, and textile-treatment fields.

• Synthetic lubricants that withstand heat and cold were developed at the Naval Research Laboratory.

• Nonflammable hydraulic fluids for aircraft control systems were compounded at the same laboratory.

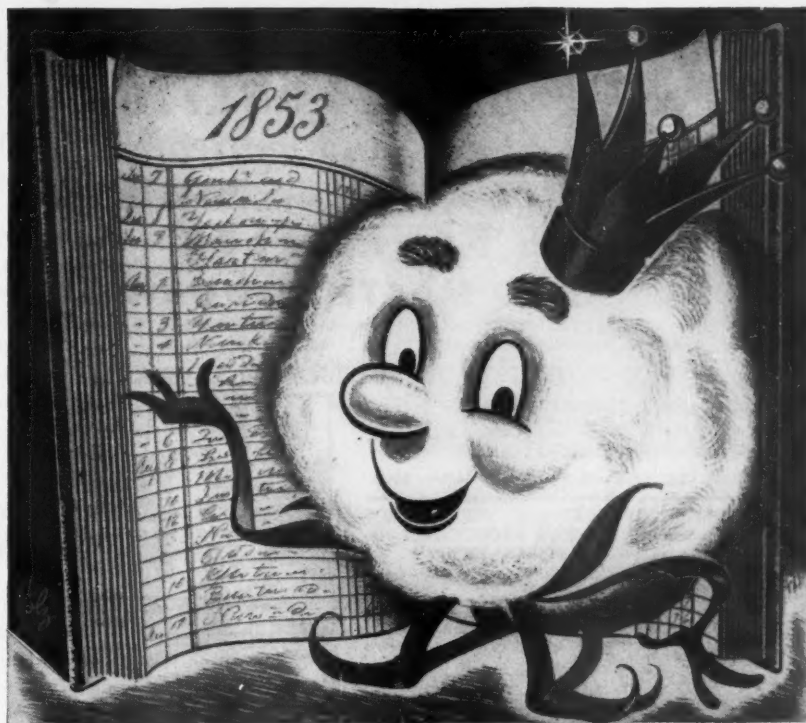
• Shark-repellants, first devised to protect downed airmen, will some day find a civilian use. They're being tried out now on an African beach.

Electronic Research

Many of the peacetime uses of electronics are well-known. One of these is the use of radar to make blind flying and blind airplane landings safer (BW—Jan. 4 '47, p. 38). But there are several other developments that have also proved their value since the war.

• **Fuse**—The proximity fuse was developed during the war to explode a bomb or shell at a preset distance from the target. It has found several peacetime uses. Among them: It helps fight forest fires by exploding water "bombs" before they hit the ground (picture, page 57); General Electric uses it as a warning device to help control traffic in laboratory hallways (BW—Jul. 26 '47, p. 56).

To make the proximity fuse work, a radio tube far smaller than those in existence had to be developed. The result: a vacuum tube not much bigger than a grain of rice (picture, page 58). Using these tiny tubes, Sylvania Electric



Parsons Cotton Fiber Paper Keeps the Records

THE long, tough cotton fibers in Parsons Papers for record-keeping sheets and cards take the years in their stride. Such paper is usable and legible far longer than if it were made with less durable materials.

Not only does cotton fiber paper last longer, but it wears better, doesn't fade or discolor, stands more erasing and, in stationery and letters, marks yours as a *quality* organization. These are the five points of superiority of Parsons cotton fiber paper.

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Remember, it pays to pick Parsons. Bonds, ledgers and indexes are available in a wide, economical range of colors and weights. Your records and cards will be more useful to you if you insist on the paper with the five points of superiority. Parsons Paper Company, Holyoke, Massachusetts.

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MEETS INDUSTRY HALF WAY

Co. has made a complete radio about the size of a package of cigarettes. The tubes will also be used to make "invisible" hearing aids.

• **Man-Made Lightning**—Just before the war, General Electric learned to make artificial lightning; it exhibited it at the New York World's Fair in 1939. During the war, this discovery was used to test the effects of real lightning on planes, and to find ways of protecting planes against lightning (picture, page 56). The lessons learned in this research are now being put to good use in civilian aviation.

Among the many other peacetime adaptations of wartime electronic developments: printed radio circuits, which save assembly time, improve set operation (BW—Feb. 23 '46, p19); cooking with high-frequency waves (BW—Feb. 2 '46, p32); mapping with radar; the use of radar on ships.

Medical Advances

The strides made in wartime medicine are directly applicable to peacetime use. Well-known, but important, are:

- Mass-production techniques for making penicillin (picture, page 58);
- Discovery of streptomycin;
- Application of mustard gas to cancer treatment;
- New antimalarial compounds: chloroquine, pentaquine, paludrine;
- New insecticides, rodenticides, plant-growth regulators;
- The Air Forces' "baby lung" (picture, page 58), which is being used as a temporary aid in infantile paralysis epidemics; and
- The oximeter, which shows when the oxygen in the blood stream reaches dangerously low levels.

Other Fields

War research has been responsible for progress in the application of super-sonics. These high-frequency sound waves were originally studied for their death-dealing properties. But now they are being directed toward useful peaceful applications. Among these: inspection of metal products for flaws; killing bacteria; homogenizing; paint-mixing; speeding chemical processes; removing dust from the air. Supersonics is also helping the blind in a device called the obstacle detector.

In other ways, too, the individual is benefiting from war research. For example, Stewart-Warner, during the war, developed a compact high-output gasoline heater for bombers. That same basic device, converted to gas or fuel oil, is available today for home heating (picture, page 57). A suitcase-size furnace can heat a four- to five-room house, fits between walls or in a closet, requires no cellar.

**Who builds more types and sizes of presses
than any other company?**



EVERY TYPE AND SIZE PRESS—MECHANICAL OR HYDRAULIC—is built by Bliss for blanking, forming, drawing or forging metal into an endless variety of products...farm equipment, household appliances, railroad equipment, automotive and electrical parts and toys. If it can be made of pressed metal—Bliss builds a press to make it...better.

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IF YOU'RE PLANNING TO BUILD A CAN-MAKING PLANT or intend to increase your production by adding new equipment, Bliss can help you. We can quote a plant complete, or separately on machines for large and small volume production of containers for fruits, vegetables, milk, spices, powders and meats; for petroleum products, paints and varnishes, cosmetics and drugs.

Bliss Can Tester checks air-tightness of cans, rejects faulty cans automatically.

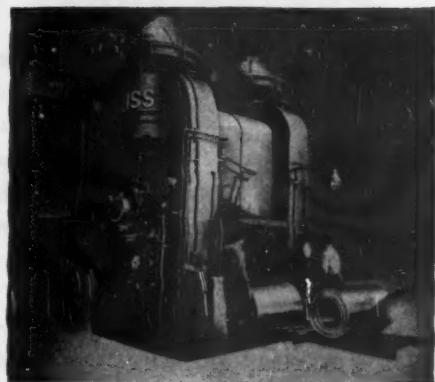


**Who is one of the leading builders of
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NO ROLLING MILL PROBLEM IS TOO LARGE FOR BLISS' EXTENSIVE FACILITIES. Leading companies the world over have raised output and reduced costs with Bliss sheet and strip mills and accessories. Bliss builds two-, three-, and four-high mills for hot and cold rolling, single stand reversing or tandem operations for ferrous or non-ferrous applications as well as cluster mills and a complete line of accessories.

Entry side of 21" x 50" x 72" Bliss Four-High Mill for cold reducing of aluminum.



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Only a company of BLISS' scope can:

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*"See you
at 5, Jim"*

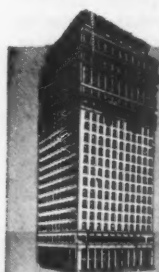


Jim and Tom were friends and next-door neighbors. Their wives exchanged family "news" while their kids went off to school together. They worked at the same plant, though at different locations. . . . This particular morning neither Jim nor Tom suspected that, an hour later, Jim would be rushed to the hospital with a mangled right arm that had to be amputated. . . .

SERIOUS accidents—some of them fatal—occur in industrial plants or on large construction projects every day. With today's high production and construction activities, a carefully planned program of accident prevention such as our experienced Safety Engineers have developed for many companies, is increasingly important.

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This is only one of the modern insurance services available to your organization through our agents or your broker.

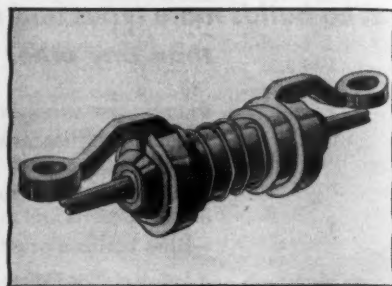


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NEW PRODUCTS



Twist Stopper

Keeping electrical cords from twisting and curling is easy with a new safety swivel developed by Burlington Instrument Co., Burlington, Iowa. The device is attached to the end of the cord inside the plug (or to direct contacts on appliances without plugs). It is made in two sleeve-type sections fitted inside each other and assembled with protective insulation.

Both inner and outer sleeve assemblies have swivel contacts at each end, held in position by springs. Terminal arms and points are designed so that each swivel contact has three contact points. When the unit is attached, the swivels are free to turn with movements of the cord. This is said to assure uninterrupted flow of the current and to prevent static.

The device installs without special parts. Standard units are made for 125-v., 10-amp. capacities.

• Availability: six months.

Nail Collar

Metal roofings and sidings are said to give longer service if they're put on with nails using Neoprene washers. The washers cover cracks and crevices around the nail holes, eliminate corrosion caused by contact of different metals. The manufacturer, Gora-Lee Corp., Stratford, Conn., also says the rubber seats will prevent nail "pull" caused by expansion and contraction of the metal.

Gora-Lee reports that several nail manufacturers already are offering screw-type and straight nails equipped with the washer.

• Availability: immediate.

Heat Resistant Rubber

Heat and oil cause little damage to a new type of rubber developed by B. F. Goodrich Chemical Co., Rose Bldg., Cleveland. Called Hycar P. A. (polyacrylic), the rubber is made in both dry and latex forms. In its vulcanized state, it can be used in gaskets, beltings, oil seals, and insulation coatings. Un-

vulcanized, it works as an adhesive and as a coating or impregnant for fabrics and papers.

Resembling natural pale crepe rubber, the new material can be compounded or extruded with standard processing equipment. In tests it is said to have shown no apparent loss in properties after treatment at 400 F. for eight hours.

• Availability: immediate in limited quantities.



Quick Key Picker

Selectom, an automatic key case, will spell finish to those doorstep juggling acts. The case holds two keys—one in each of its twin slots. By pushing a metal slide button along the slot and into a groove at the end of the case, the key is ejected and held in place for use. A spring-actuated button snaps the key out of the lock and back into the case after the door is opened. Different surfaces on the slide buttons make it easy to pick the right key.

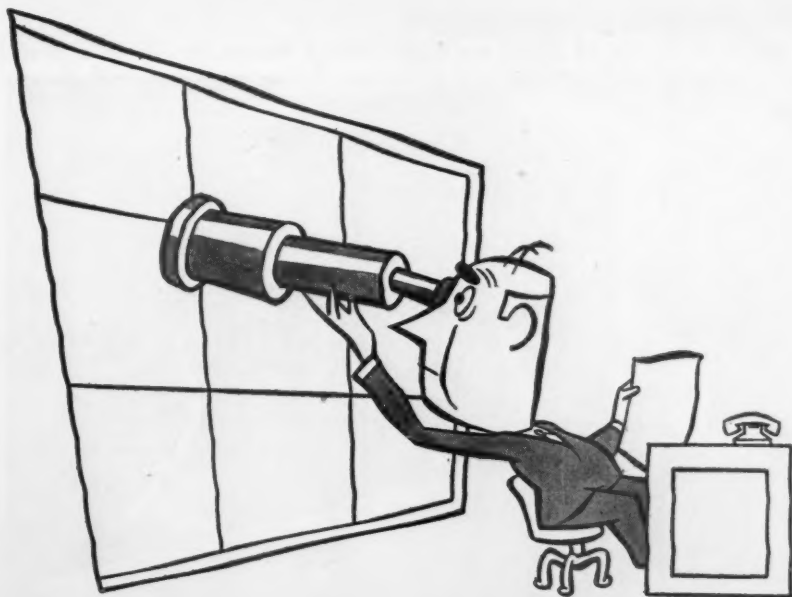
The case is made in Tenite plastic, has two identical halves held together by metal clips. A thin metal plate lies between the halves. To load, the parts are separated and a key is placed in each half with the button extending through the hole in the key.

The case can be imprinted for use as an advertising premium. It's made by Future Products, Inc., 5014 W. Erie St., Chicago 44.

• Availability: immediate.

Battery Doctor

First aid for rundown auto batteries can be applied easily with Batter-Up, a battery charger that's installed inside the car. The unit can be mounted either in the driver's compartment or under the hood. It plugs into any 110-v., a.c. outlet, reportedly brings batteries up to full charge overnight. The unit includes a plug-in trouble lamp that bypasses the car's fuse system in case of a short-circuit; it can be used for on-the-road



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If you are a builder of pump-equipped products, you should know what Moynos can mean to you in user satisfaction. Moynos have solved hundreds of industry's toughest pumping problems—and they're equally good for *built-in applications*. These amazing pumps pass particles, resist abrasives and chemicals, self-prime, reverse, meter flow—deliver positive pressure without pulsation . . . stand up where other pumps fail.



A single moving part—the rotor—turns within a stator to create continuous "wedging" pumping action. Moynos have no pistons, valves, or high-speed impellers; use no portion of the housing as sealing surface. Types and sizes for all needs.

An informative booklet, "A Turn for the Better," explains "progressing-cavity" pumping; gives pressures, capacities, uses. Write to the R & M Pump Division for Book No. 22BW. Distributors from coast to coast.



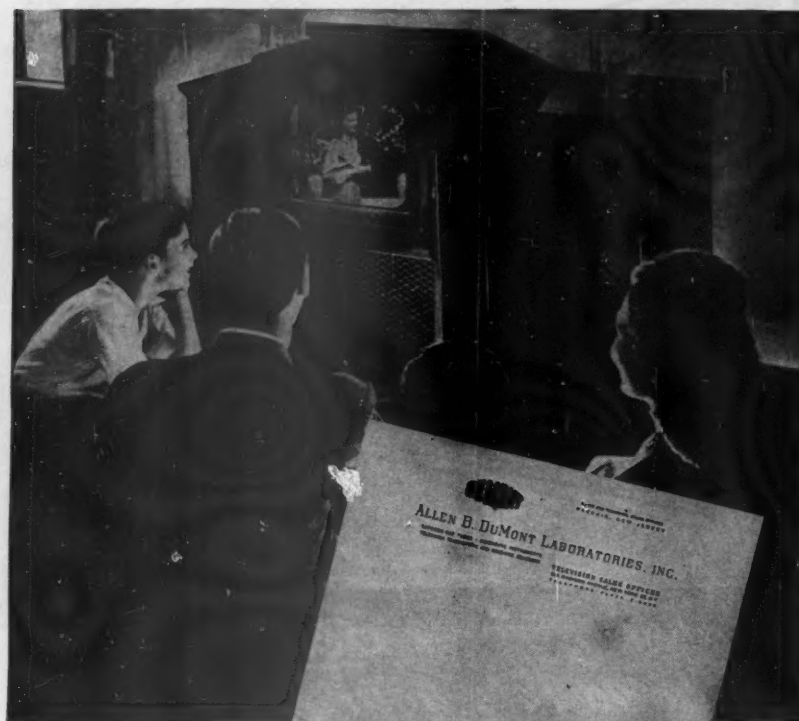
The "Standard" Moyno for General Service. Other types include pumps for higher pressures, volatiles, and edibles, as well as special compact designs for specific service needs.

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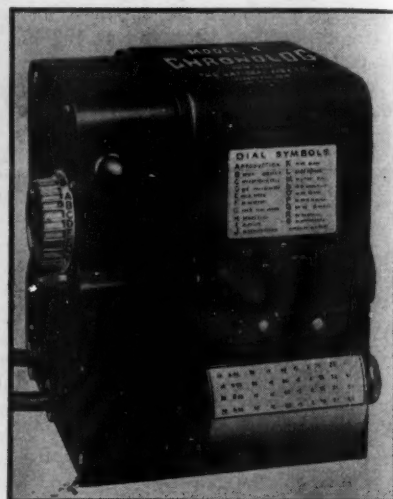
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Work Recorder

Increases in production averaging better than 10% are said to result from installation of an improved control device, the Model X Chronolog. The instrument records when, for what cause, and for how long a machine is idle. The tabulated report also shows the number of units produced (in feet or in number of pieces), and the production time required.

The instrument weighs 33 lb., measures 8 x 8 x 8½ in. It can reportedly be adapted to any production job. Chronolog Inc., National Bank Bldg., Detroit 26, is the distributor.

P. S.

Safety clips to keep fluorescent tubes from falling are made by General Scientific Equipment Co., 27th & Huntingdon Sts., Philadelphia 32.

For sports fishermen Lewis E. Hamel Co., Inc., Rochester 13, N. Y., makes a folding minnow trap in transparent plastic.

A new tool, which has been developed by Acme Tool Co., 71 West Broadway, New York 7, makes it easier to take pistons out of gasoline and diesel engines.

Truckers can cut engine noise with a gadget that fits in the exhaust pipe between engine and muffler. Development is sponsored by the Oregon Motor Transport Assn.

Odorless disinfectant, Sterl-it, is "ideal for sanitizing baby garments, toys, and dishes." Made by Wisconsin Chemical Products Co., 5117 N. 32nd St., Milwaukee 9.

FINANCE



NEW branch of Security-First in Los Angeles reflects a banking trend that pays off

Bank Retails Its Services

Modern, convenient branches of California's Security-First National sell financial services over the counter, bring big business gain. Result: boost in capital to keep up with deposits.

For some time the Security-First National Bank of Los Angeles has been like a growing boy wearing a suit several sizes too small. Next week it has the prospects of acquiring bigger coat and pants.

• **Shareholders to Vote**—On Jan. 13, the 13,600 shareholders will vote on a double-barreled plan to accommodate Security-First's bulging physique. It calls for:

(1) Transferring \$6-million from undivided profits to capital stock; that will increase capital stock outstanding from \$24-million to \$30-million. (No stock dividend is planned. Instead, par value of each of the bank's 1.2-million out-

standing shares would be upped from \$20 to \$25.)

(2) Transferring \$4-million from undivided profits to the surplus account, thereby increasing the latter to \$30-million.

• **Plowback**—If approved, the plan's net effect will be to plow \$10-million back into the business. That, of course, means an improvement in the capital-deposits ratio.

In a notice to shareholders announcing the plan, the bank commented that the capital increase "is warranted by the substantial increase in deposits." Its 930,000 stockholders have stuffed \$1.6-billion in deposits into the bank's

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- Outlines the costs and other factors in production.
- Gives step-by-step description of film-making—photography, animation, sound, etc.
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A survey of almost any plant will show up many places where hundreds of man-hours could be saved for productive work through the use of ROSS Heavy Duty LIFT TRUCKS. Six models, capacities 5,000 to 18,000 pounds. Hydraulic hoist, gasoline power, pneumatic tires.



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125 branches. (Five years ago deposits totaled but \$800-million.)

• **Rivalry**—Security-First's position in southern California is roughly that of a giant in tweeds next to a gargantua in spangles. Everywhere that Security-First is big, Bank of America is a little bigger.

But this situation doesn't worry the somber giant. Security-First is big enough for its own liking. Also, it feels that it has shown its huge neighbor, the world's largest bank, a thing or two in the realm of money-changing.

It operates south from sun-baked Fresno in mid-California to the Mexican border. Despite this self-imposed limitation, it has piled up \$1,698,741,921 in resources, is the eighth largest bank in the U. S. In dollar value, its savings deposits rank third in the nation, behind only Bank of America and Bowery Savings in New York. In number of domestic branches (in the U. S.) it ranks second.

• **Modern Facilities**—In a section noted for unconventional architecture, Security-First is helping to make the traditionally austere, marble-dominated bank obsolete. Its new branches (picture, page 69) are modern, with low counters, fewer bars and cages. Walls are painted in warm colors and windows are large to admit plenty of light.

The drive-in bank, now popping up around the nation, was started by Security-First 10 years ago in Vernon, Calif., an industrial suburb of Los Angeles. When wartime building restrictions blocked erection of a branch in West Los Angeles, Security-First rented a fix-it shop and turned it into a bank. Two years later, the branch boasted \$2-million in deposits.

• **Modern Philosophy**—Into its modern-style banks, Security-First has injected a modern banking philosophy. It tries to operate branches like retail stores, placing emphasis on services. This idea developed in depression years when Security-First tackled the problem of winning suspicious, small depositors back to doing business with banks.

Security-First advertised that it would settle estates as small as \$1,000. The result was a flood of customers who had thought they were too small fry for banks to bother with. Now Security-First handles the largest trust business west of Chicago, has lured over \$100-million in new trust business to its branches for each of the last two years.

It went after small loans for installment buying, small businesses, and homes. Now 99% of its loans are less than \$1,600.

• **Escrow Innovation**—Security-First made another depression innovation pay off. That was its escrow department which, for a fee, serves as a clearing-house in real estate and other transactions. It is essentially a title-searching agency for protection of seller, buyer,



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IT might pay you—as it has many others—to look into high vacuum.

It was high vacuum distillation that brought forth the precious concentrates for Vitamins A and E. High vacuum dehydration aids in the production of penicillin. High vacuum played a part in atomic developments. With high vacuum distillation, former waste materials from a soap manufacturer are converted into valuable pharmaceuticals. For a perfume manufacturer—thousands of dollars' worth of essential oils are recovered from residual sludge.

Who can say what may be born in a vacuum? High vacuum adapted to the fractionating of petroleum, to

the processing of foods, chemicals, textiles, metals, plastics, electronic equipment, may be worth millions of dollars to these industries—discover invaluable benefits to humanity, in better health, better living.

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and broker. Security-First now processes more than 5,000 escrow items monthly.

Other products of its retailing philosophy include Christmas Club saving plans, the 10¢-check accounts, and published rate schedules for loans, trust services, and checking accounts. In the war bond drives, Security-First handled 20% of all bonds sold in southern California. It sells more American Express traveler's checks than any other American agency—\$17-million in 1947.

• **Guiding Hand**—Mainspring of the retailing philosophy has been George M. Wallace, who was president from 1934 to 1946. Now chairman of the board, Wallace found that new services he established during the 12 years of his presidency are now being used by 210,000 Security-First customers.

While serving the man in the street, Security-First has not neglected other aspects of banking. It has avoided heavy dealing in real estate, has leaned more toward commercial loans. In the motion picture industry, it holds a position in loans to independent producers parallel to that held by the Bank of America in loans to major producers. Recently it set a new record in movie-financing by putting up \$5-million to produce "Joan of Lorraine."

• **Timely Pattern**—With big fortunes dying out, Security-First believes its



TO EXPAND UTILITY

C. B. McManus, new president of Georgia Power Co., has two big jobs on his hands. One is to finish putting in some 200,000 kw. of additional generating capacity, the other, to finance more than \$50-million of new construction. McManus, who recently succeeded the late Preston S. Arkwright, Jr., is equipped for the job. A graduate of Alabama Polytechnic Institute, he took special courses at Westinghouse and General Electric. His early utility training was with Alabama Power Co. He came to Georgia Power in 1927. The new facilities will help the company meet the ever-rising power load.



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Here are ready-made markets, a perfect manufacturing climate, nearby and abundant raw materials, skilled and willing workers, unlimited opportunity . . . *all* the things that any business needs to mark up a bright, prosperous, winning future.

Your cue?

"Look Ahead—Look South!"

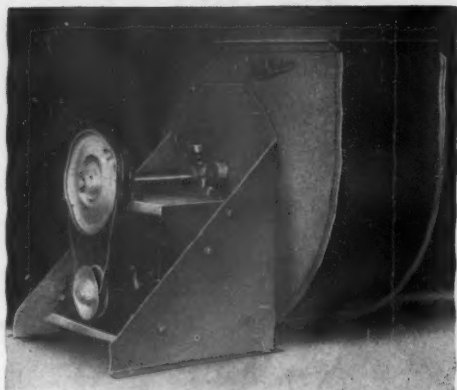
Ernest E. Harris
President



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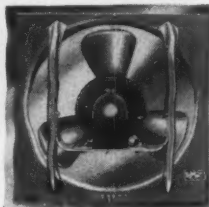
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★ INDUCED DRAFT

★ PRESSURE BLOWING

★ CLEANING

★ DRYING

CUTTING COSTS IN EVERY BRANCH OF INDUSTRY

pattern of banking fits into the times.

It was formed in 1929 by the consolidation of two sets of banks founded by Joseph F. Sartori and Henry M. Robinson in 1875. Security-First is now headed by James E. Shelton, a veteran of 28 years in the organization. A disciple of Wallace's retailing philosophy, Shelton is carrying on the pattern.

To those southern Californians who feel that Security-First could be a trifle more spectacular in its spectacular homeland, the bank points to a solid fact: Since 1881 it has never failed to pay an annual dividend.

Union Oil Borrows Now To Get Low Interest Rate

Buy now before prices go up. That was the advice that Reese H. Taylor, president of Union Oil Co. of California, gave last week. The commodity he was talking about was money.

Taylor announced that his company had got a \$15-million loan from the New York Life Insurance Co. Union's 25-year note bears an interest rate of 2.8%, is subject to a sinking fund of 4% of principal, starting in 1953.

• **Expansion**—The funds were earmarked for expansion and replacement of plant facilities and crude oil reserves, and "to meet the problems of inflation."

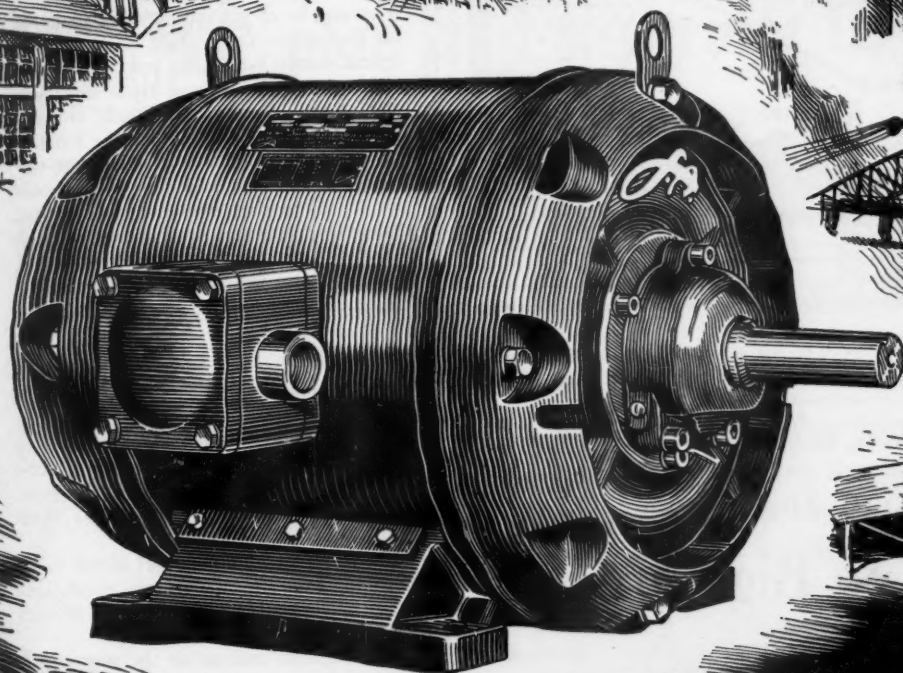
Union wasn't pressed for cash, but it snapped at the chance to get a long-term loan at that price. The reason, said Taylor, was that the amounts oil companies are setting aside for depletion and depreciation represent only the historical cost, not the number of dollars that are necessary to make replacements today or in the foreseeable future.

There was no guarantee, he said, that the large percentage of current profits Union was plowing back would be sufficient to offset constantly rising costs of replacement.

• **Earnings**—Union's earnings in 1947 were high—\$2.80 per share after preferred dividends for the first nine months against \$1.27 for the same period in 1946. In recent consumer magazine and newspaper ads Union told the public what had been done with the \$8,543,594 profit it earned in the first six months of 1947.

Stockholders received dividends of \$2.801,885—about 3% on gross sales. Of the remaining \$5.75-million, \$5.2-million was spent on day-to-day replacement of equipment. Money Union had set aside for that purpose—some \$10.5-million—was not adequate to meet today's inflated costs. For example, in 1941 it cost Union \$12,000 to lay one mile of pipe. In 1947 the cost was \$30,000.

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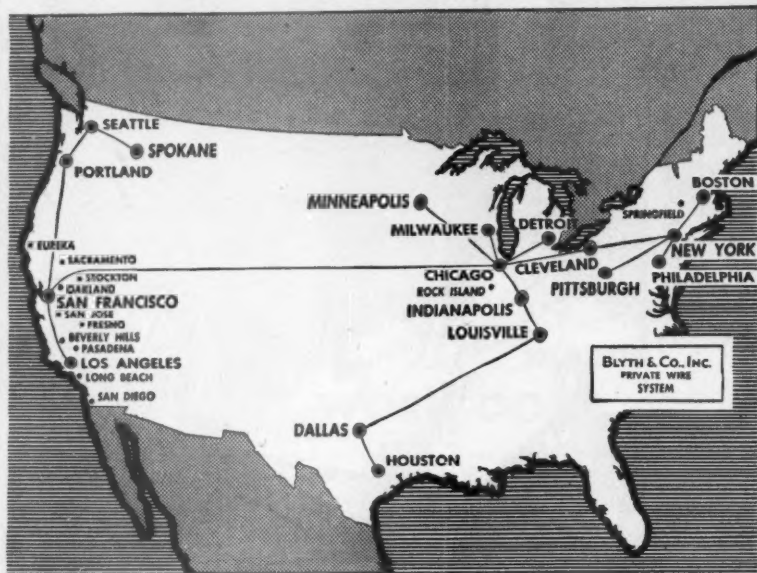
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BLYTH & Co., Inc.

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YEN TROUBLE

It takes a lot of yen—and a lot of room—to do banking in Tokyo these days. Masked against assaults from germs and dust, women employees of the Bank of Japan stow bundles of yen in the vault, already crowded with boxes of money. Mounting inflation has so boosted the issuance of Japanese currency that the bank is hard put to find room for it. Employees' dining rooms, meeting rooms, even hallways are doubling as storage space. The yen's special military exchange value last year was 15 to \$1; today it's 50.

This announcement appears as a matter of record only and is under no circumstances to be construed as an offering of these securities for sale, or as an offer to buy, or as a solicitation of an offer to buy, any of such securities. The offering is made only by the Prospectus.

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Copies of the Prospectus may be obtained in any State in which this announcement is circulated only from such dealers, including the undersigned, as may legally offer these shares under the securities laws of such State.

OTIS & CO.

December 18, 1947

INSURERS BUY MORTGAGES

U. S. life insurance companies have more money invested in real estate mortgages today than ever before. The Institute of Life Insurance last week put the current total at \$8.5-billion; that's a net increase of some \$1.5-billion during 1947.

All told the industry put about \$2.5-billion into new real estate mortgages during the year; about \$1-billion of outstanding principal was paid off.

A large percentage of the new mortgage money went into Veterans Administration mortgages under the G.I. Bill of Rights. These purchases amounted to more than \$500-million. Total investment by life companies in VA veterans' home mortgages is currently about \$800-million.

FHA mortgages held by the life companies increased to about \$1.4-billion last year. Farm mortgage holdings reached some \$850-million.

The life companies' direct holdings in real estate also increased appreciably. They now own some \$825-million worth of real property, up about \$100-million over last year. The trend toward buying nonresidential city real estate (BW-Nov. 1 '47, p. 75) accounted for a large slice of this. Holdings of this type now total \$175-million.

Q.

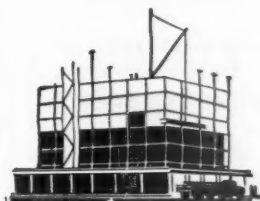
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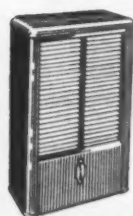
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Gas Heaters Since 1888

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THE MARKETS

Corporate Bond Prices Slide, Yields Rise

	1946-47		Current	
	High Price	Yield to Maturity	Price	Yield to Maturity
UTILITY BONDS				
Amer. Tel. & Tel. 2 $\frac{5}{8}$ s, 1986....	100.85	2.59%	85.75	3.10%
Boston Edison 2 $\frac{3}{4}$ s, 1970.....	108.75	2.19	98.12	2.89
Cincinnati G. & E. 2 $\frac{3}{4}$ s, 1975...	107.87	2.30	97.37	2.92
Gulf States Utilities 2 $\frac{7}{8}$ s, 1976..	101.50	2.55	91.00	2.95
Jersey Cent. P. & L. 2 $\frac{7}{8}$ s, 1976..	105.00	2.58	95.00	3.21
RAILROAD BONDS				
Atch. Top. & S. Fe 4s, 1995.....	133.75	2.75	115.25	3.35
Grt. Northern 2 $\frac{3}{4}$ s, 1982.....	101.14	2.70	82.50	3.96
Louisville & Nash. 2 $\frac{7}{8}$ s, 2003...	105.00	2.65	83.00	3.84
N. Y., Chic. & St. L. 3s, 1986...	102.36	2.90	81.00	3.96
Union Pacific 2 $\frac{1}{2}$ s, 1991.....	102.19	2.42	84.12	3.41
INDUSTRIAL BONDS				
Bethlehem Steel 2 $\frac{3}{4}$ s, 1970....	105.62	2.38	95.00	3.13
P. Lorillard Co. 5s, 1951.....	120.00	1.25	109.50	2.75
Socony-Vacuum Oil 2 $\frac{1}{2}$ s, 1976..	100.50	2.48	90.25	3.15
U. S. Rubber 2 $\frac{5}{8}$ s, 1976.....	101.50	2.53	89.87	3.32
Wheeling Steel 3 $\frac{1}{4}$ s, 1970.....	108.00	2.78	95.00	3.57

Where Do Bonds Go Now?

Wall Street doesn't know. First new issues this year gave some hope that prices have hit bottom. Just the same, borrowing will cost more in 1948 than it did in 1947.

Depth of the price decline in good corporate bonds since the 14-year upswing ended early in 1946 is enough to make the jaw of any corporate finance officer drop. And this is doubly true if he contemplates going into the money market for his company in 1948.

• **Question**—The big problem for expectant corporate borrowers now is to figure out just how much the latest jump in interest rates (BW—Jan. 3'48, p52) is going to cost them. In other

words, has the drop in bond prices about run its course? Or will the new issues market in 1948 have to keep inching up coupons and whittling down offering prices?

Wall Street isn't ready to answer these questions just yet. Underwriters agree to a man that corporate financing—either in bonds or in preferred stocks—is going to be more costly in 1948 than it was in 1947. Just how much, nobody wants to say.

• **Encouraging**—But since the turn of the year the Street has dropped the crying towel long enough to handle some sizable pieces of business. And the results have been more encouraging than many bond men had dared hope.

Recent competitive bidding contests, for example, have seen six to 10 syndicates scrambling to get their share of the spate of new utility financing that greeted the new year.

• **Explanations**—One reason for the better feeling among underwriters is the behavior of the corporate bond market since the Federal Reserve System cut its support prices for Treasury securities just before Christmas. Appar-

Security Price Averages

	<i>This Week</i>	<i>Week Ago</i>	<i>Month Ago</i>	<i>Year Ago</i>
Stocks				
Industrial	148.8	150.5	146.9	147.2
Railroad.	44.5	43.4	39.9	47.4
Utility . .	69.6	67.2	66.1	80.7
Bonds				
Industrial	118.2	118.1	119.4	122.6
Railroad.	103.9	103.7	104.3	114.0
Utility . .	113.4	113.3	114.6	110.9

Data: Standard & Poor's Corp.

ently, the corporate market took its medicine all in one dose. Since the first drop, it has tended to firm up.

Another and more important factor: Right or wrong, the trade has become convinced that a huge amount of invested institutional funds has built up in recent weeks. Bond men are confident that the pressure of these funds will break the "buyers strike" of life insurance companies and other institutions.

• **Caution**—But in bidding for new issues, underwriters obviously are not for-

getting the sharp losses that have occurred in seasoned issues (table).

For example, only one borrower was able to get a coupon as low as 3% from the underwriters in this week's competitive bidding contests. Rates of 3½% to 3¾% were more prominent. In public offerings, there was the one issue yielding less than 3%, but yields of 3.1% to 3.25% were the rule.

Also, underwriters for the moment are using only utility bonds for their test of the new issues market. Normally, this group is the easiest of all to sell.

How the Government-Bond Market Works

Corporate security prices take their cue these days from the government bond market. When the Federal Reserve System cut its support price for governments two weeks ago (BW—Jan. 3 '48, p. 52), corporate bonds promptly took a sympathetic spill.

Trading in government securities is a highly specialized business. Even professional traders in other securities often are hazy about the machinery for dealing in Treasuries.

Here are the answers to some of the common questions about the market for governments:

Q. What securities does the Treasury issue?

A. A wide variety. They range from 90-day bills to bonds with a maturity of 20 years or longer. Some are not transferable—for example, Series E savings bonds. Others are bought and sold on the open market.

Q. How are they traded?

A. All but a small fraction of the trading is handled over-the-counter. A few sales go through the New York Stock Exchange on busy days. The bulk of the business is done by about a dozen dealers who specialize in governments.

Q. How do the Federal Reserve Banks support the market?

A. The Reserve Banks have authority to buy and sell government securities in the open market. They can support the market by buying all the offerings that do not find private takers at a specified price. As long as they stand ready to do this, their buying price puts a floor under the market.

Q. Who determines the support price?

A. Legally, the decision lies with the Open Market Committee; it is made up of the seven members

of the Federal Reserve Board and five of the presidents of Federal Reserve Banks. In practice, the Open Market Committee works closely with the Treasury.

Q. Are the Federal Reserve Banks required by law to support the market?

A. No. The law leaves the whole question of buying and selling to the discretion of the Open Market Committee.

Q. What limit is there on the amount the Reserve Banks could buy?

A. The only limit would be determined by the law which requires the Reserve Banks to keep a reserve of 25% in gold certificates against all notes and deposits that they issue. With the present gold stock, the Reserve Banks could buy as much as \$40-billion more in government securities. At present, they hold about \$22-billion.

Q. Have the Reserve Banks always supported the market?

A. No. The present support program was developed during the war to help the Treasury market its wartime debt without running up interest rates. Before that, there was no official support program, but during the depression the Reserve Banks were heavy buyers (by the standards of those days) of government securities. The idea then was to reduce interest rates to stimulate recovery and cheapen the cost of government borrowing. After World War I there was no support program. Government bonds then sold at big discounts for some time.

Q. Are Series E bonds affected by the support program?

A. There is no direct effect. The redemption values remain the same regardless of what happens to prices of marketable issues.

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LABOR

NLRB Issues First T-H Injunction

Board acts against A.F.L. teamsters union in a secondary boycott case. But the question of the law's effectiveness against mass picketing is still left unanswered.

For the first time under the Taft-Hartley act, the National Labor Relations Board has got an injunction against a labor union. It came this week from a federal court which ordered A.F.L. drivers to call off a secondary boycott and to stop other practices listed as illegal under the T-H law. NLRB sought the court order on behalf of two employers against the teamsters union.

• **Two Questions**—The injunction answered one of two important questions which management has had about the T-H law; the other is still unanswered.

ANSWERED—What kind of help can we expect under the new law, in cases in which secondary boycotts are involved?

STILL UP IN THE AIR—How effective can we expect the T-H law to be in combating mass picketing?

The secondary boycott injunction, issued in U. S. District Court in Utica, N. Y., followed precedent-setting hear-

ings last month. In them, NLRB charged that the Albany teamsters' local had violated the T-H law by: (1) conducting secondary boycotts; (2) forcing payments for services not rendered; (3) "featherbedding" practices; and (4) otherwise engaging in unlawful labor techniques. The original complaint to NLRB was filed by Conway's Express Line, of Pittsfield, Mass. Montgomery Ward & Co. also filed a complaint against the Albany local, charging only that the union was engaging in a secondary boycott.

• **One Injunction**—The court issued an injunction only in the Conway's Express case. But it held that the single writ would be enough to bar the union from the specified-unfair labor practices at Montgomery Ward.

Management generally watched the Utica proceedings with close interest. Up to Nov. 30, the NLRB had received 82 charges of boycotts. In line with the new labor law it had given them



MASS PICKETING, not specifically barred by the Taft-Hartley law, blocked doors of four international communications companies in New York this week. A strike of 2,500 employees, members of C.I.O.'s American Communications Assn. and an inde-

pendent union, closed two-thirds of the cable lines between the U. S. and the rest of the world. The unions called the strike for a 30% wage boost. At midweek, companies charged unions were invoking boycott. They asked NLRB to take injunction action.

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Better Yield Saves \$25 a Day
More Uniform Product
Production at Maximum Capacity
Removes Nervous Strain from Operators
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PROBLEM:

Colonial Preserves, Buffalo, N. Y., had a fine line of jams and jellies but they were bedevilled by expensive variations in concentration due to the effect of daily barometric pressure changes on the critical end-point temperatures. (An inch variation in barometric pressure will vary boiling point 1.7° F., or enough to affect the concentration of jam or jelly mixture about 5%.) Over-concentration resulted in the loss of several pounds of product from each batch; under-concentration necessitated reprocessing or bothersome blending with succeeding batches to meet Federal requirements. Operators were under heavy nervous strain. Production was badly reduced.

SOLUTION:

They put a standard Taylor End-Point Control System with Automatic Barometric Compensation on each processing kettle. Now all they have to do is set the control point for the type of jam, quality and ripeness of fruit, etc., and the instruments automatically adjust the end-point temperature in accordance with variations in barometric pressure.

RESULTS:

All the operator has to do is load the kettles and push a starter button. When the processing is completed a signal light on a lower operating level indicates that the batch is ready for the filling machines. Variations in concentration are well within 1% which alone accounts for \$25 to \$30 savings per day due to increased yield. Savings in production time often permit an extra batch per day. *The dollars-and-cents savings pay for the instruments in only a few months.*

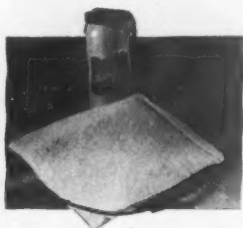
MORAL:

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priority on its case docket. NLRB had investigated the cases, issued formal complaints against the unions, finally filed injunction proceedings in federal courts.

• **Temporary Orders**—But until the Conway's Express order, the NLRB court pleas had brought only two temporary restraining orders. One was in the New York Trailerships case (BW—Oct. 11 '47, p. 88), in which A.F.L. longshoremen were enjoined from a dockside boycott of vessels. The other was against A.F.L. Wine, Liquor & Distillery Workers, directing it to end a secondary boycott against the Schenley Distillers Corp. in New York.

One reason that permanent writs were scarce, of course, was because unions didn't want to force a T-H test on the secondary boycott issue. In most cases, unions dropped their secondary boycotts or other unfair labor practices as soon as NLRB issued a complaint. In a few other cases, charges have bogged down in the courts.

• **Mass Picketing**—Management has found little, so far, to show that the T-H law might help check mass picketing. The House version of the T-H bill sought to bar it in labor disputes. But a milder Senate provision prevailed. It merely makes it an unfair labor practice for any union to "restrain or coerce" employees in the exercise of their rights.

Restraint and coercion cases don't get any priority on NLRB's docket; they have to await their turn for hearings. The board, however, can go into the courts to get injunctions in picketing cases—when it gets around to them.

• **No Quick Relief**—But there's little hope for quick relief from mass picketing under the T-H law. The Sunset Line & Twine Co., in Petaluma, Calif., can attest to that. For last week, Harry Bridges' C.I.O. longshoremen and warehousemen still moved along a two-month-old picket line outside the Sunset plant.

Pickets began their march in October; after a week, Sunset asked NLRB for help under the T-H law. The company charged that the union was committing an unfair labor practice by "restraining and coercing" employees. It was doing this by blocking plant entrances with 100 to 300 pickets, interfering with police escorted workers, spreading tacks in the company parking lot, and so forth.

• **Delay**—NLRB looked into the charge, and nine days later issued a complaint against the union. It scheduled a hearing three weeks from the date of the complaint; the docket was full until then. Later, NLRB found that it had to postpone the hearing another two weeks. Finally, early last month, a trial examiner heard testimony.

As of this week, the Sunset management was still waiting to hear from

NLRB on the outcome of the hearing.
• Few Requests—Actually, NLRB has so far had comparatively few requests to act in "restraint and coercion" cases. Most employers who have come up against mass picketing have felt that prospects for quick help from NLRB were too dim. In many states they can go to state courts for orders requiring peaceful picketing and limiting the number of pickets. Bosses have steered clear of the NLRB bogdown (BW—Dec.27'47,p64) and worked, where possible, through state boards.

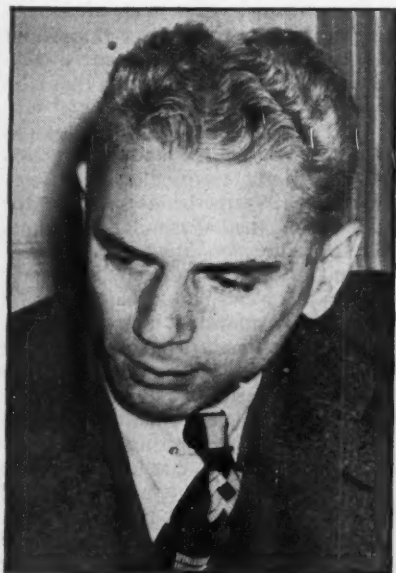
This is the way the Senate wanted things to work out. It insisted on dropping the House bar on mass picketing because it didn't want the federal government to become a policeman in labor disputes. It left to a test of time—and a new Congress—the question of whether further lawmaking would be needed on mass picketing.

NEW G. M. UMPIRE

A professional "neutral" in labor relations, 38-year-old Saul Wallen, is taking on one of arbitration's hot spots—the post of impartial umpire between General Motors Corp. and the United Auto Workers (C.I.O.).

• The Job—Wallen becomes the fifth man to hold the job since it was established by agreement between the company and the union in 1940. He succeeds Ralph T. Seward, who recently moved to the post of arbitrator between U. S. Steel and the C.I.O. steelworkers union (BW—Aug.23'47,p68).

The umpire's office is the court of last resort in grievances between the auto workers and G.M. Disputes filter up through a multistep procedure, go to the umpire only after careful screening by both parties. The office handles



Saul Wallen

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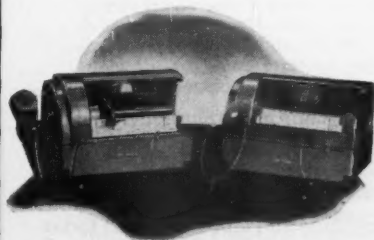
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upwards of 200 cases a year, dealing with them on a highly formalized basis. The opinions written in these cases are widely distributed through the company and union organizations.

• **The Man**—Selection of Wallen is a tribute to his carefully preserved impartial reputation as well as to his competence. During the war he served as chairman of the Boston office of the National War Labor Board. He also has arbitrated for many companies and unions in the electrical, rubber, communications, and textile industries. He is currently a special lecturer in Harvard's School of Business Administration.

Wallen will take over his new post later this month. He will be paid—jointly by the company and the union—about \$20,000 a year.

Is Labor to Blame?

Two congressional committees disagree on charges that A. F. L. building trades unions are responsible for housing lag.

Is labor responsible for the slow progress being made in meeting housing needs? Is it holding up conventional construction and mass production of homes through prefabrication?

A lot of criticism has been directed at workers in the building trades in recent months. Critics charge that low productivity exists because of union featherbedding and other restrictive practices. Last fall, two committees of Congress set out to find out what the situation really was—and what, if anything, could be done about it (BW—Oct. 25 '47, p. 50).

• **Disagreement**—This week, after hearings in a number of cities throughout the country, both groups made preliminary reports. Significantly, they disagreed.

The Senate-House Committee on Housing reported it found construction labor "willing to produce." It concluded that featherbedding is not the big reason that demands for homes can't be filled.

On the other hand Rep. Ralph W. Gwinn of New York, chairman of a House subcommittee investigating restrictive, monopolistic, and racketeering practices of unions, reported to Congress: "In nearly all of our big cities, union bosses determine where and when the building craftsman shall work, if at all, what his rate of production shall be, and what the rate of pay shall be."

• **Help**—The joint committee is headed by Rep. Ralph A. Gamble of New York and Sen. Joseph W. McCarthy of Wis-



BRICKLAYER TRAINING may end one building problem: too few skilled workers

consin. It has had full cooperation from the A.F.L. Building Trades Dept. A.F.L. furnished witnesses for 25 hearings held by the congressional group, and helped its investigators in other ways.

The unions also named a committee to meet formally with a subcommittee of the joint congressional body. Next week, this A.F.L. committee is supposed to come up with some independent findings and recommendations on housing problems. Later, A.F.L. and congressional committeemen will "confer on the makeup of proposed new housing legislation"—based on the findings of both groups.

• **Findings**—Gamble's preliminary report says his committee found:

(1) Labor is willing to produce. This is indicated by the fact that 860,000 dwellings were started in 1947.

(2) There is "no indication" that featherbedding practices now are an integral part of union policy. Where such practices persist, the committee said, the unions have promised that they will be stamped out.

(3) Skilled workers are returning to the building trades, and apprenticeship training is being speeded (BW—Dec. 6 '47, p110).

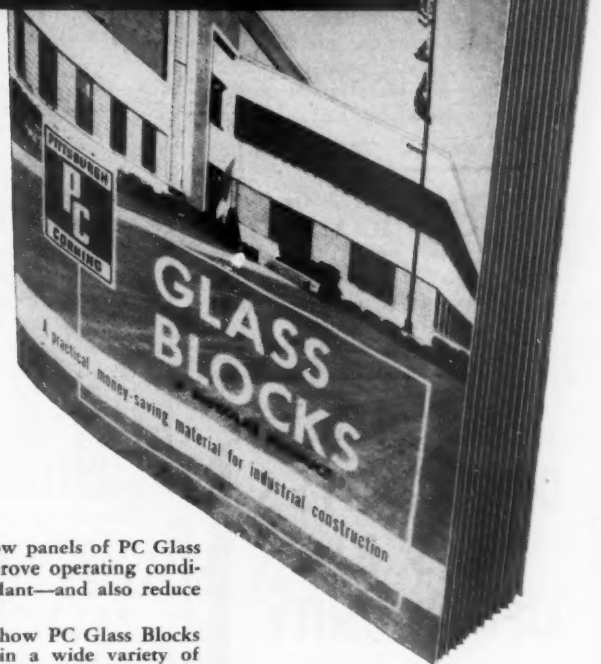
(4) Housing shortages and disruptions are mainly in urban areas, expanded by war industries, where commercial construction is booming and contractors are bidding for workers.

• **Charge**—In his interim report, Rep. Gwinn charged that the building industry is sick from three bad practices: (1) monopoly; (2) restriction; and (3) racketeering.

Gwinn urged an amendment to the Taft-Hartley law aimed at "penalizing monopolistic and restrictive practices,"

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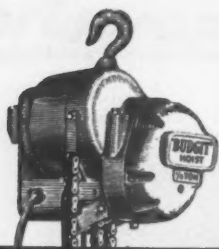


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and worded specifically to include the building industry.

• **Prefab Problems**—Both congressional committees studied on-site construction principally. However, there's consid-

erable interest in Washington congressional circles on problems in prefabricated housing, too. Reason: Output of such units is lagging far behind the big predictions made originally, and

THE LABOR ANGLE

WHAT effects will the Henry Wallace third party operation have on labor's internal lineup in 1948?

The answer will have a big bearing on how unions and management get along together. Here's a breakdown of the major question into its parts and the best answers which can be found today:

Q. Which labor unions will support Wallace for President?

A. Only those which are sufficiently Communist-controlled to follow the "Party Line" in defiance of the official position of both the A.F.L. and C.I.O.

Q. Are there many of these?

A. A little over a dozen international unions affiliated with the C.I.O., and numerous district and local bodies connected with both A.F.L. and C.I.O. organizations.

Q. Will every Communist-dominated union expose itself by supporting Wallace?

A. No. In a number of cases the Communist leadership will think it more important to preserve the disguise of non-Communism than to endorse Wallace openly.

Q. Isn't it possible that at least a few non-Communist unions will support Wallace?

A. It is highly unlikely. Both the A.F.L. and the C.I.O. will put all the heat they can on their constituent parts to hold them in line against the third party. This will be effective in all the honestly "doubtful" cases.

Q. Labor leaders already know the pro-Communist character of all the left-wing unions. How will the 1948 election change anything in the relations between the left and right?

A. Up to now, the left and right have lived together in the C.I.O. by a tacit understanding to soft-pedal their deep differences. Wallace and his supporters, however, call their foes "war mongers, tools of Wall Street, red baiters, and anti-people." In a political campaign these tags will be put on all those who actively support the opposition. As the line develops,

Philip Murray will become a "Fascist" to Harry Bridges; Walter Reuther is already the "bosses' boy" to the left-wing locals of the United Auto Workers. Men in elective spots must fend off such attacks. And the only rational defense is to identify the attacks and their source for what they are. This will break into the open the factional fight now smoldering in the C.I.O. Once in the open, there is little chance for it to be compromised or glossed over again.

Q. Does this mean the C.I.O. will split in 1948?

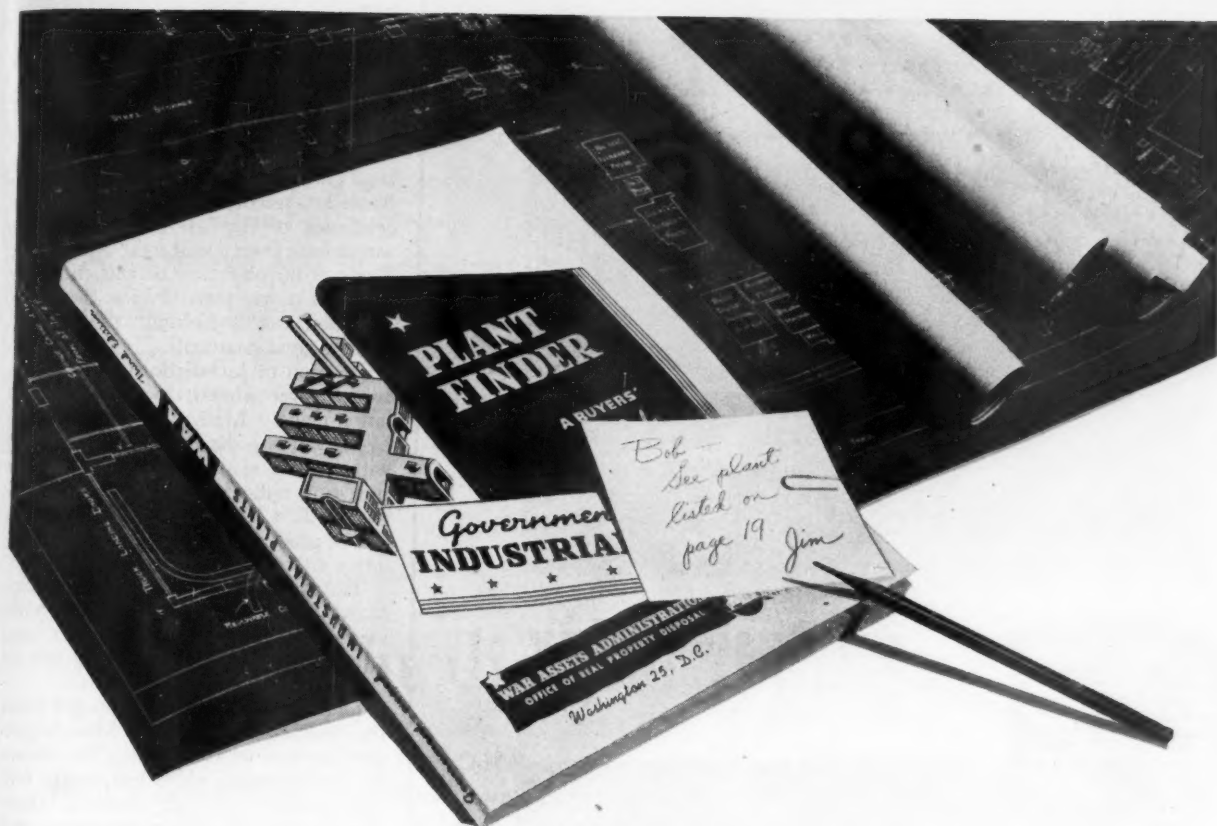
A. Not necessarily. That decision will be up to the Communists. The right-wing forces can drive them out of the C.I.O., but the anti-Communists are not yet well enough organized to capture the unions that the Communists control. If the Communists decide to eat enough crow, the C.I.O. will give them lodging in the labor movement.

Q. What will determine how much crow the Communists will eat?

A. The practical reckoning of where they can most effectively hurt the Marshall Plan. Supporting Wallace is only one tactic in their offensive against the U.S. international position. If, after the presidential election, they feel they can carry on best toward this objective by staying in the C.I.O., they will eat plenty. If they think they can do as well outside, they will rest on their dignity and leave—probably to offer John L. Lewis a partnership in running a third labor movement.

Q. How is management affected by labor's family fight?

A. In the short run, frictions will raise the temperature over the entire labor front. A greater amount of "labor trouble" can be expected than 1948 would otherwise have seen. For the long run, however: Any action that weakens the hold of Russian-oriented elements on U.S. labor is an important prerequisite to establishing constructive labor relations in this country.



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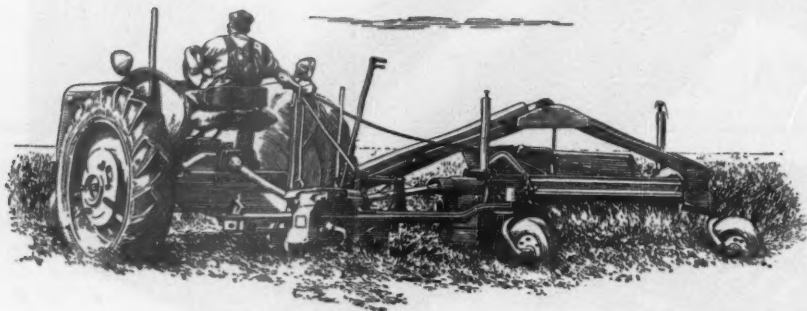
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labor has been made a handy scapegoat.

Richard T. Gray, president of the A.F.L. Building & Construction Trades Dept., has taken violent exception to this attitude. He denies that A.F.L. has any policy against prefab housing. A.F.L. realizes the need for building large groups of houses in 500- to 1,000-house lots, according to Gray; it is fully conscious of the advantage a builder would have from a mill right on the site. There is no objection to this, now, or to use of power tools. Nor is there any objection to assembling union-made prefabricated materials.

• **Question of Jurisdiction**—But the big issue is over what is to be considered union-made. Many A.F.L. building trades unions have signed contracts with prefab manufacturers. Whatever they turn out, of course, is union-made on A.F.L.'s list. But A.F.L. considers C.I.O.-produced materials to be non-union and taboo.

The A.F.L. carpenters have approximately 100 agreements with prefab manufacturers. Electrical workers' and plumbers' unions also have long lists of contracts with prefab companies.

Late last year, the plumbers got from the Prefabricated Homes Manufacturers' Institute in Washington the names of 320 companies which had sought federal priority aid. It checked these through local union committees, and had reports on 183; Of them, 60 were unknown in their areas; 77 were operating on a union (A.F.L.) basis; and 46 were listed as nonunion.

• **Model Pact**—Last November, Lustron Corp., builder of all-steel, low-cost homes on an "assembly-line basis" in Columbus, Ohio, signed a widely publicized pact: It agreed with unions of carpenters, plumbers, and electrical workers (all A.F.L.) that all plant and site work would be done by A.F.L. members. About 16 prefab builders in the Chicago area now are under this type of agreement. For example, Harnischfeger Corp., at Port Washington, Wis., signed such a pact—and an A.F.L. carpenters' ban on that firm's prefabricated homes was removed nationally.

The contracts, signed in "a spirit of cooperation" with builders, have a clear-cut objective for the A.F.L. unions—full control of building in manufacturing plants and on construction sites.

• **Illegal?**—Congressional interest in this aspect of the building industry centers on an important question: Is it monopolistic? And Rep. Gwinn is expected to follow up his current line of investigation by looking into the legality of the new prefab pacts under the T-H law.

Meanwhile, two other building labor developments have been getting national attention:

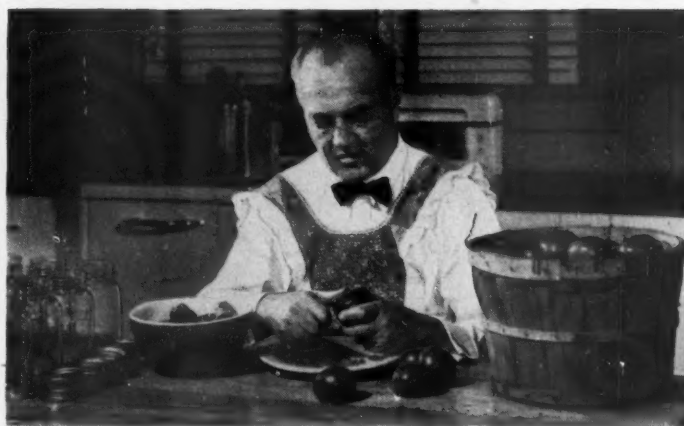
A stabilization pact, covering 70% of New York building trades workers, was

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INEVITABLE hazard of the trade? Management thought so until the public accountant pointed out that the fiscal year could easily be changed to conform with the trade's natural business year—in this case, Sept. 1 to Aug. 31. The summer slack concluded a natural business cycle; the inventories and receivables were at the lowest ebb; there was less work to do, more time to do it. Financial statements

prepared at that time gave a clearer picture of business past, provided more reliable indices of business future, supplied a better base for sounder planning. Result: merrier Christmases and more prosperous fiscal New Years to boot!

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signed Dec. 30 between A.F.L. and the Building Trades Employers Assn. An average 5% wage increase was given to 250,000 workers, and pay rates were frozen at least until July 1, 1949. They will not be increased even then unless living costs have risen more than 15%. Object is to spur building by letting builders and investors plan ahead—knowing that there will be no unforeseen hikes in labor costs. Both parties also agreed to cooperate in expanding a construction apprenticeship program, and to work together wherever possible to “get building programs rolling.”

A jurisdictional peace pact in the many-union building trades was getting serious attention in A.F.L. offices in Washington. Congressional leaders recently served notice on the unions that they've got to work out a plan for settling jurisdictional disputes—or have their family feuds taken over by the National Labor Relations Board under the T-H law. Result: A.F.L.'s Building Trades Dept. is studying plans for a tripartite system (the two feuding unions and a neutral) to settle disputes without federal intervention.

U. E. FRAMES DEMANDS

C.I.O.'s United Electrical, Radio & Machine Workers this week announced plans to ask “substantial” raises on Feb. 1 from major electrical manufacturers—General Electric Co., Westinghouse Electric Corp., and the electrical division of General Motors Corp.

The dollar-and-cents figures of the demand haven't crystallized yet; they will depend on just where the cost-of-living index is when negotiations get under way. But U. E. has tipped its hand a little: It would like to get back “as much as possible” of what it says is a \$13.03 loss in “real weekly wages” since January, 1945. However, the union is unlikely to ask—and doesn't expect to get—the whole 32¢ hourly hike that would be required to restore its claimed loss.

“Down payment” settlements have been made with Sperry Gyroscope for 7¢ an hour, and with the Radio Corp. of America for 5¢ an hour. Both agreements are subject to reopening.

Other contract demands include a uniform health and welfare plan for all contracts—financed by the employers. U. E. also wants pension plans in all contracts, 2- to 12-week severance pay, two additional paid holidays, and an improved vacation program.

U. E. made one thing clear: It does not consider G. E.'s price reductions (BW—Jan. 3 '47, p. 25) sufficient grounds for withholding new wage demands. The union eyed the price cuts skeptically, charged all came in a market influenced by growing competitive pressures.

Garage Settlement

Seattle mechanics go back to work after six-month strike. Dealers met wage demands, but claim important victory.

Mechanics were back at work this week in garages run by Seattle new-car dealers. Their six-month strike ended on Christmas Eve: The International Assn. of Machinists accepted a new wage offer just in time for members to collect premium pay for Christmas work.

• **Solid Front**—The mechanics walked out of 39 garages last June in a wage dispute. Employers, who bargain jointly with I.A.M., had learned in a dispute ten years ago that they couldn't win without a solid front. To prevent a break in ranks, they put a new twist in Seattle labor relations.

Each dealer posted a cash pledge that he would not sign any wage deal unless the other employers approved it unanimously. Cash deposited with the Seattle Automobile Dealers Assn. totaled \$472,500.

With their pledges at stake, dealers kept their ranks solid during six months of off-and-on negotiations. They rebuffed offers of separate settlements, even despite the pressure of an I.A.M. newspaper ad campaign. Nor did union appeals for a federal antitrust probe of the dealers' agreement pay off for I.A.M.

• **Demand Met**—Mechanics struck for a \$1.75 hourly wage rate, an increase from \$1.60. The dealers' offer last June was \$1.65. The dealers finally met the mechanics' demand, but they feel that they actually conceded very little.

Their reasoning: During the six-month strike, the government's cost-of-living index rose about eight points, to 163.8. Roughly, this is about 5%. During the same period, dealers nosed up their offer 10¢, or not quite 7%. Thus, they figure, they merely kept pace with the changing c.-of-l. index.

In addition, the contract—normally signed on an annual basis—will run until May 1, 1949. It provides an increase to \$1.80 an hour on May 1, 1948.

• **Who Got Most?**—Dealers consider they've made two big gains through these clauses:

(1) They will skirt wage negotiations for nearly a year and a half; and (2) the expected 1948 wage drive will pass them by because they have already conceded a 5¢ hike. I.A.M. hasn't argued with employers about who won or who lost the strike. But it has pointed out to its members that the settlement was at the union's figure—and that dealers also agreed to add 5¢ more next May.

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A.F.L.'s Political Arm Discusses Future Plans

The 80th Congress had more than legislative matters on its mind when it convened this week for its second session. It was watching the A.F.L. and the C.I.O., and thinking of November.

Both labor organizations have cited the record made during the first session as justification for electing a new Congress with different ideas on labor-management relations and inflation control. Because of the Taft-Hartley labor law, A.F.L. has followed C.I.O.'s Political Action Committee by establishing Labor's League for Political Education—originally called Labor's Educational & Political League.

• **Plans Discussed**—This week the L.L.P.E.'s administrative committee of 30 met in Washington to map future plans. One item, big on the agenda, was tabled: A director for L.L.P.E. won't be named until A.F.L. bigwigs have had a chance to get together in Miami on Feb. 4.

Among those who have been mentioned frequently as candidates for the post, two have now been eliminated. Ex-Sen. Robert M. LaFollette, Jr., of Wisconsin is reported to have turned it down. Ex-Sen. James M. Mead of New York also is reported to have told A.F.L. he isn't available—there's a government spot in the offing for him. Two former congressmen are still being mentioned. They are Ex-Rep. Andrew J. Bienenmiller of Wisconsin and Ex-Sen. Burton K. Wheeler of Montana.

A.F.L. has indicated that it will not take a stand on the presidency, but that it will be active only in the congressional races.

• **Against Third Party**—L.L.P.E. took no political stand at its meeting this week. But when it adjourned, A.F.L. president—and L.L.P.E. chairman—William Green had a few words to say: Creation of a third party was "a great political mistake, and labor generally will be opposed to Henry Wallace's candidacy," Green told a press conference.

Later this month, on Jan. 20, 21, and 22, the executive board of the C.I.O.-P.A.C. will meet to discuss its 1948 campaign—including the Wallace third party problem.

The Pictures—Acme—19, 83, 101, Int. News—47, 76, 102; Press Assn.—80, 85; Richmond News Leader—20; Fabian Bachrach—32; Air Materiel Command—56, 58; U. S. Forest Service—59; U. S. Army A.A.F.—58.

INTERNATIONAL OUTLOOK

BUSINESS WEEK

JANUARY 10, 1948

SERVICE

The European Recovery Program looks better to business now that the Administration has dropped the \$17-billion price tag (page 15).

Foreign traders have backed Sen. Vandenberg on this point all along.

They didn't oppose a four-year aid program for Western Europe, as such. But they figured Congress should take a close look at results year by year.

The Office of International Trade (Dept. of Commerce) is now using price as No. 1 criterion for export licenses. Some sellers won't like it.

OIT's object: to hold down the export price of controlled commodities, thus stretch the dollar supply abroad.

The danger: Unless experienced officials handle it, the system will jam up trade. And it might turn into an outright invitation to hijacking and bootlegging.

During the current quarter, Commerce will use price to screen most commodities under export control.

Included will be all foods; all chemicals and drugs (except streptomycin); all steel products; coal and coke; tinplate; and certain wood products.

Other controlled commodities (for example, petroleum and building materials) will be brought under the new system later—probably April.

Here's how the system works: A French manufacturer wants tinplate. Several U. S. exporters bid on the order; they offer comparable merchandise and sales conditions. The bid carrying the lowest price tag will get Commerce's nod.

Price, however, won't be the sole criterion. As in the past, end-use will remain a guiding factor.

The French buyer may want to use the tinplate for packaging shoe polish. If so, Commerce won't grant the license, no matter how low the price.

Tinplate may be exported only for canning and preserving food.

There's another exception to the price principle. A Belgian construction firm may want steel to repair a railroad bridge in a hurry. Because of the request for speed, all bids from U. S. suppliers will probably be well above the going rate.

If Commerce feels that speed is all-important, it will license the exporter who can ship the steel there fastest. Price becomes a secondary consideration.

OIT's Export Supply Branch expects a lot of extra work in handling the new system. It will more than double its force (from 140 to 340).

Commerce will also establish the branch's work on a long-range basis.

The Administration now figures on export controls for an indefinite time to come.

Premier Schuman of France has put through his drastic tax plan.

There's now a chance to get the franc on a sound basis.

Washington looks for a balancing of the French budget for the first time since the end of the war; also a wage-price freeze for at least six months.

Devaluation of the franc is in the cards, too—perhaps in two stages.

Washington thinks France will first set up an export franc valued at about 240 to the dollar. This is a little less than half the present exchange

INTERNATIONAL OUTLOOK (Continued)

BUSINESS WEEK
JANUARY 10, 1948

value of the franc (119). At the 240 level, France should be able to export in quantity.

It can then build up foreign exchange credits for essential imports, especially food.

After a trial period (during which the new rate might be adjusted up or down) the franc would be officially devalued.

•
The U. S. is taking no chances on a slipshod setup for Trizonia in Western Germany (BW-Jan. 3'48, p69).

Gen. Clay's staff in Berlin has blue-printed the Trizonal administration down to the last detail.

Clay has learned plenty from the joint Anglo-American operation in Bizonia.

The only question is how soon the French will be ready to play according to our rules.

•
Meanwhile, Bizonia's exports have fallen behind schedule.

The Joint Export-Import Agency set a 1947 target of \$350-million, (excluding coal and timber). The actual total was about \$225-million.

•
U. S. and British businessmen blame the artificial methods of trade under military government. They list the following as chief handicaps:

A price-fixing system which often bears no relation to world competition.

Price-control to protect British manufacturers. (For example, German bicycles are priced at \$30 when a better British model is already selling at \$26.)

Channeling export trade so that Germany's small neighbors get a heavier flow.

Requiring contract approval before production begins.

Excess of red tape for both buyers and sellers.

•
You can expect startling news from China before long: formation of a new government in the south.

Chiang's regime has been losing the war against the Communists. It has also been losing the fight against inflation.

Now it has lost the support of influential members of the Kuomintang (China's ruling party since 1912).

•
But a new regime doesn't mean that Chiang's number is up.

What's happening is this: A group of middle-road Kuomintang leaders is fed up with the reactionary clique around Chiang. They've given up all hope of stopping the Communists under the present setup. So they've moved south to Hong Kong and Canton where they are preparing the ground for a new government. They'd like to bring Chiang down as top man. With every Red victory his prestige has dropped; but there's still enough left to give the new group a big-name drawing card.

•
The heat is on in Russia to complete the postwar Five Year Plan a year ahead of schedule (page 97). Production targets for 1949 (instead of 1950):

Coal, 250-million tons (51% above 1940); steel, 25-million tons (35% above 1940); oil, 35.4-million tons (18% above 1940).

BUSINESS ABROAD



FROM POLAND TO PACIFIC Russia boosts raw material output to feed heavy industry —especially in the Urals (white area)

The Soviets Map Their Changing Industry

New Russian book gives outsiders a peek into vast industrial shifts since war. It maps resources, outlines economic plans for future.

Everybody knows that World War II vastly changed the economic map of the U.S.S.R. But it's been pretty hard to figure just how much. The Russians won't tell you the time of day in the Urals—much less say how important the Urals will be to Russia's postwar economy. Nor can you get very much data on what the general eastward shift of industry amounts to; or what the latest Five Year Plan will do to continue the shift.

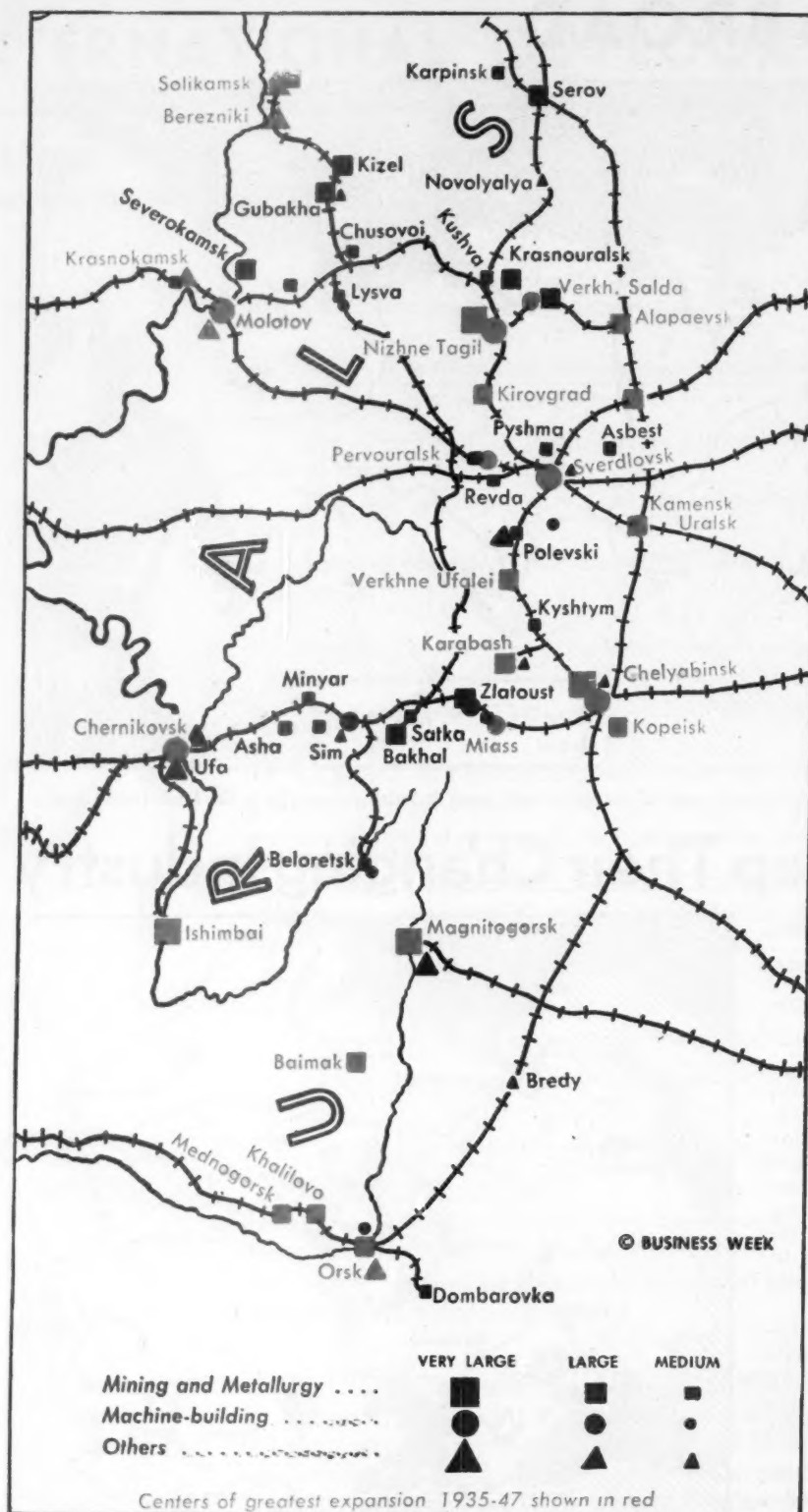
• **Behind the Veil**—But curiously, the Russians themselves have now lifted the curtain a little. In a new Soviet economic geography, which has just reached the United States, you can get a pretty good peek—if not a full glance—at the changing industrial map.

Name of the geography is "Map of the Fatherland, 1917-1947" (by N. N. Mikhailov; published by the Central Committee of the Young Communist League). In some 80 maps, it gives a wealth of recent data on Soviet achievements and Soviet plans for industry.

• **Plans and Projects**—What the book shows about the location of the chief Five Year Plan development in new coal, iron, and oil production appears in Business Week's map above. Thus:

Coal mines with 5.5-million-ton an-





RUSSIA IS PROUD of its war-expanded heavy industry in the Urals

nual output will be opened in the Urals; a new field at Kuyurgaz will be worked to reduce tonnage hauled from mines 700 miles east. In Central Asia, industry will get fuel from new mines at Uzgen and open-cut workings at

Ekibastuz. In the Far East, a new coal field in the Burienski Basin will feed industry there. In the Arctic the Pechora mines will boost yearly output of coal by 7,700,000 tons. Former Polish mines at Dashava in the Western Ukraine

will raise output 9.7-million tons a year by 1950. Old mines in the Donbas and on the Kerch peninsula in the Crimea are being expanded. Gas from coal will provide nearly 1-billion cubic meters a year, or nearly 10% of total Soviet gas production in 1950.

Iron mines with more than 2-million tons annual capacity are to be opened at mountain Shoria in the Kuzbas. (The Kuzbas is becoming a new industrial center.) A new iron combine at Kursk, and the mines of Tula and Lipetsk will be the base for a new steel industry in western Russia.

Oil and gas production is being stepped up from Sakhalin Island in the Pacific to Dashava in old Poland. New projects in Central Asia at Ferghana, in the Second Baku at Ufa and Saratov, in the north at Ukhta, and in Estonia, will get special emphasis. Gas pipelines will connect the Estonian shale fields with Leningrad, Dashava with Kiev, and the capacity of the Saratov-Moscow line will be raised.

• **Growth in the Urals**—A comparison of the size of Ural industrial centers in 1935 (shown in an earlier Soviet atlas) and in 1947 points up the spectacular growth of the war years (map). Officially, Ural industrial output more than tripled; pig iron, coal, and power output doubled. At least six blast furnaces, 45 openhearth furnaces, 22 rolling mills, and 14 batteries of coke ovens were built during the war. Hundreds of plants were evacuated to the Urals from land lost to the Germans. Nickel mines at Orsk, manganese mines near Chelyabinsk, an aluminum industry, new copper mines and smelters swung into production. As a result, the output of some two dozen cities more than doubled.

Many new prospects are slated for the Urals under the present plan. Those started during the war will be completed—to boost pig iron output 40% and steel production 60% above the war peak. By 1950, the Sverdlovsk heavy-machinery combine will be able to equip six blast furnaces and two rolling mills per year. The Magnitogorsk combine will raise its output by 1.8-million tons of pig iron, and 2.2-million tons of steel.

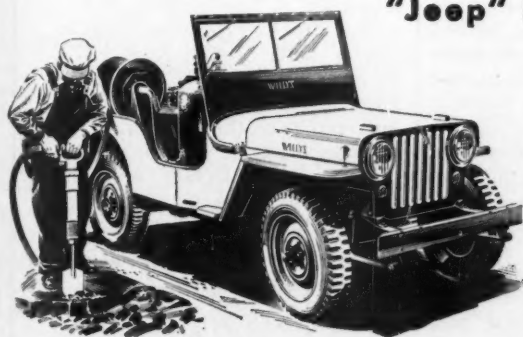
• **Industry Near Sources**—The Soviets pride themselves on locating industry near raw material sources (map, page 97). In recent years aluminum plants have risen at Volkhov, Krasnovishersk, and near Sverdlovsk in the Urals, close to bauxite mines. New chemical industries have been built at Aktyubinsk, Dzhambul, and expanded near Ural and Donbas raw materials sites.

Metalworking industries cluster around the coal and iron mines of the Urals, Donbas, and Kuzbas. New industry is being built near new iron mines of the Tula-Lipetsk-Kursk triangle.



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BUENOS AIRES LETTER

BUENOS AIRES—Viewed by U. S. or European standards, Argentina's industrial revolution is still no great shakes. And the chances are that it won't be until the lack of domestic fuel and ore supplies is overcome. But for a country that has always been dependent on others for manufactured goods, Argentina's industrialization is making fair headway.

The latest census figures show that industry now accounts for 46.2% of Argentine income. This means that manufacturing has forged well ahead of agriculture and livestock—traditional pillars of the nation's economy. Agriculture now accounts for 22% and livestock 23% of the national income.

THE CHEMICAL-PROCESSING industry is leading the way toward Argentine self-sufficiency. Rayon production has been outstanding. Duperial Chemical Co., for instance, has just installed new equipment for making both nylon and rayon near Buenos Aires. Thanks to such moves, Argentina has been able to get along on its booming textile production despite its ban on imports.

The Argentines have also made strides in processing vegetable and linseed oils. This is chiefly because the government won't permit export of uncrushed linseed.

But there's one catch: The U. S., once Argentina's best customer, will buy almost no linseed oil here this year. The reason: Economic czar Miguel Miranda has pushed the price so high that U. S. farmers have found it profitable to raise their own flaxseed.

HERE'S A BIRDSEYE picture of what's happening in other major sectors of the battle to industrialize Argentina under Peron's Five-Year Plan:

Steel and aircraft. The military forces are now training technicians at a pilot steel plant. These men will operate the \$100-million mill which Armco International will build for Peron (BW—Nov. 1'47, p96). The army is also operating an aircraft factory which is turning out military transport planes and bombers using U. S. engines.

Automobiles. Argentina has had a ban on imported cars since last

June. But, it has been able to get new cars—thanks to the Ford and General Motors plants here. Both operate large assembly lines and even make components. (GM is planning to expand its plant—BW—Oct. 25'47, p110). The Argentine plants also make tires for these cars. But there's one catch: Ford may have to shut down this month if it can't bring in more supplies.

Power. The government plans to start work on eight new hydroelectric projects during 1948. Another \$10-million dam on the Atuel River is almost completed, and three thermo-electric plants are either under way or planned.

Cement. The cost to import steel beams is prohibitive. So the Argentines have developed a superior type of multi-floor concrete buildings, which has brought on a construction boom. There are plans for a huge new concrete plant at San Juan, to replace one destroyed in the 1944 earthquake.

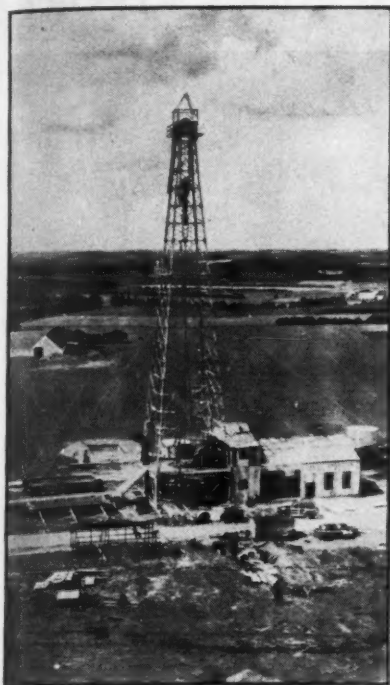
Consumer goods. Hundreds of small plants are sprouting up all around Buenos Aires. They are producing electric refrigerators, tires, liquor, batteries, radios, phonographs, pharmaceuticals, furniture, minor iron and steel products, pressing and laundry machines.

Petroleum. This has been a serious bottleneck. Argentine production has been declining steadily since 1942 due to lack of proper equipment. The government oil monopoly is now putting \$12.5-million into 40 exploratory wells in various parts of the country. A U. S. firm called "The Drilling & Exploration Co. of Nevada" has just been given the contract.

Transportation. Argentina is still dickering with Britain over the British-owned rail network. Payment of the \$500-million purchase price has not yet begun.

MEANWHILE IMPROVEMENTS are going ahead on the government-owned Argentina State Railway.

To carry out its industrialization program, Argentina must import heavily. Imports, of course, are limited to essentials. Even so, in the first eight months of 1947, imports from the U. S. were double any previous year.



OIL HUNT IN DENMARK

Deep in central Jutland, the Danish American Prospecting Co., Gulf Oil subsidiary, is plumbing for new sources of oil. The company holds a concession on all mineral rights in Denmark. When the 8,000-ft. exploration is complete, it will be the first deep test well to be sunk in that country. The hunt was begun before the war, halted when the Nazis took over.

SELLING NEW ORLEANS

New Orleans' energetic promotional campaign to boost itself as a port of entry has already caused a stir (BW-Jun.28'47,p38). Now the business interests behind the program have a new wrinkle in port salesmanship: Last week they appointed a traveling agent to sell New Orleans to the Latin Americans.

Their agent is Rafael Ordorica, a 40-year-old former Associated Press official. Born in Mexico City, Ordorica was graduated from Rutgers and is a U. S. citizen. He served with the A.P. for 18 years. When he resigned he was administrator of the agency's operations in Latin America, Spain, and Portugal.

A number of New Orleans organizations are sponsoring Ordorica. Among them are International House, International Trade Mart, and the City of New Orleans. They will soon set up a permanent base of operations somewhere in Latin America.

Ordorica is the first of several roving salesmen. The group has plans to set up a European office within 18 months. This will be followed by offices in Africa and the Far East.

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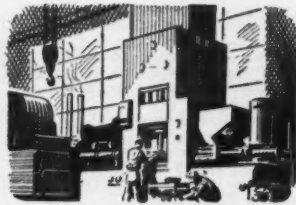


CAN HE HELP YOU FIND "A BETTER WAY TO DO IT"?

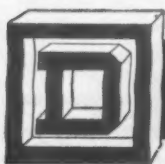
... Seasoned Field Engineers, in more than 50 offices in the United States, Canada and Mexico, serve as liaison between Square D and industrial America. Their full-time job is working with industries of every kind and size—finding "a better way to do it."

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READERS REPORT:



FASHION LUNCHEON in New York had a new brassiere and corset on the menu

Who's Staring?

Sirs:

You will pardon me, I hope, for taking exception to the statement you made [BW—Dec. 6 '47, p65] that "the comely lass . . . provoked not a single male glance."

If I'm not greatly mistaken, the gentleman (off the point of the model's left elbow) is just about to lose his right eye.

ANDREW PARKER

WASHINGTON, D. C.

• Several other discerning readers also caught us up on that "single male" who had at least one eye just about popping out of his head.

Politics—And Fear

Sirs:

The present business and political situation is probably as confusing and uncertain as most of us will ever witness. Some of us like to rely on your reporting to brush away some of the fog so that we get at least a fleeting glimpse of tomorrow.

However, after reading your Nov. 22 issue, I wonder if perhaps the fog is getting so dense that even your staff can't cut their own way through it.

In the Business Outlook you say: "You can write off President Truman's demand for consumer rationing and price controls as an exercise in pure politics." In the Washington Outlook you say: "So, Truman's motives were not entirely political when he made his Sunday night decision to tack price control and rationing on his anti-inflation program." On page 25 you say: "It was a political problem that kept the lights burning

late at the White House last Sunday night. . . .

In the Business Outlook you say: "One real bright spot in this week's news is the grain belt weather. . . . There is no hope now that 1948 can match this year's record wheat harvest. But with the drought at last broken, we still have a chance of getting a fair crop." In the Washington Outlook you say: "This is what Washington is worried about: The winter wheat crop, normally more than two-thirds of the harvest, looks bad. Unless everything breaks right, it may be hardly more than half this year's yield. . . . It could mean this choice: Ration U. S. consumption, or abandon Europe to hunger."

L. A. ETIENNE

BRANCH MANAGER,
WAGNER ELECTRIC CORP.,
CINCINNATI, OHIO.

• We don't blame such a careful reader for being somewhat confused.

Here's what happened: In teletype transmission from New York to our printshop, part of the Washington Outlook was sent with erroneous wording. This was changed as soon as we spotted it but by that time several thousand copies of Business Week had been mailed.

What the Washington Outlook said in corrected copies: "So, Truman's obviously political decision to tack on price control and rationing to his anti-inflation program had some basis in fear." This is substantially also what the Business Outlook said and the story on price control (page 25).

We do not think there is a discrepancy in the two items on the wheat crop. The Washington Outlook says that the prospects are not too good. The Business Outlook supplements this by saying that recent rains had been a help, although the crop may only be "fair." Perhaps this statement should have been amplified to bring out that even a fair crop is disastrous as we have to help feed Europe, and have little carryover.

For Inside Ads

Sirs:

We greatly appreciate your fine story on our new Multi-Color Moving Lite [BW-Nov.29'47,p54]. We have had quite a few inquiries from outdoor billboard companies which prompts us to inform you that, while our new product is applicable for outside use incorporated into billboard advertising, our intentions are to confine the manufacture to inside point-of-sale advertising signs. The thought that we originally wished to convey was that our finished product was a replica in miniature of the large outdoor spectaculars.

DAVID J. KRAUS

OHIO ADVERTISING DISPLAY CO.,
CINCINNATI, OHIO

(Advertisement)

BUSINESS IN MOTION

To our Colleagues in American Business . . .

Several years ago it became evident that the architectural profession and the building industry were being plagued and puzzled by failures in copper sheet used in gutters, flashings, and roofs, particularly on larger buildings. Since the copper had been specified and installed in accordance with then-current practice, there was a natural tendency to blame the metal. The fact that centuries-old copper in European roofs had given no trouble, and that many old copper roofing installations in this country were still good, suggested that some new factor had entered the picture.

Revere decided to discover what this factor was. First, experienced construction men were sent on a tour of inspection

of both old and recent roofs, to examine gauges, tempers, sheet lengths, methods of making joints, and provisions for expansion and contraction. It quickly became apparent that failures had their source in movement of the metal due to changes in temperatures. Buckles concentrated their stresses at angular bends, and as the copper was repeatedly flexed at these points, it eventually cracked.

Comparisons with successful roofs led to conclusions that seemed reliable, but it was felt desirable to check these by experimental work that would permit the making of those measurements and confirmatory tests that are essential to accurate analysis and dependable recommendations. Full-scale replicas of actual constructions were built in the Revere Laboratory, and subjected to conditions approximating those of actual service. By means of infra-red lamps the metal was heated, and then chilled by a "rain" of cold water. Thus in ten minutes the effects of a year of exposure could be simulated. These tests were spectacular. Movement and failure could be seen easily, and recorded in motion pictures.

The observations made in these and other laboratory tests provided the background for quantitative stress analyses and made it apparent that copper roofs and copper gutters must be considered from the structural point of view rather than regarded as mere weatherproofing veneers. The columnar strength of formed sheet metal sections was demonstrated to be of particular significance in these applications. Such strength is needed for two principal purposes: to permit the inevitable movement to be fully transmitted to and taken up by expansion joints, and to overcome friction with the underlying materials. As the work proceeded, new specifications and working designs were developed, including such matters as gauges and tempers of copper

for various installations, the protection of the underside of the metal from tar or other substances restricting its movement, the spacing and construction of expansion joints, seams, flashings and valleys, and how to make successful repairs when needed in present roofs. All these were proved by Laboratory experiments. The information is contained in a 96-page booklet, highly praised by architects, builders, and sheet metal contractors as the solution to the problem.

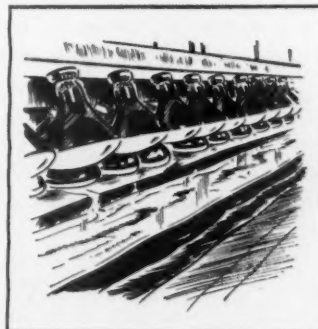
These extensive studies were undertaken by Revere not only to protect its own business in sheet copper for roofing, but out of a sense of obligation to its customers, to architects and builders, and indeed to the entire sheet copper industry. There is nothing unusual about such an attitude. You will find it everywhere. Therefore Revere suggests that no matter what you buy, nor from whom, you consult with your suppliers if you encounter any difficulties in the fabrication, use, or serviceability of their materials. In most cases you will be able to obtain immediate assistance, and if not, you should find an eager willingness to cooperate.

REVERE COPPER AND BRASS INCORPORATED

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Executive Offices:

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THE TREND

WILL THE MARSHALL PLAN WORK?—IV

EUROPE IS SHORT, far short, on both manpower and capital to meet the production goals set by the Marshall Plan. This was demonstrated in the two previous pieces in this series. But what about the export goals? Can markets be found for the goods Europe must produce to meet those Marshall Plan goals?

At first glance, the question seems academic. If the 16 nations cannot meet production schedules, what difference do export schedules make? They, it might seem, will fall by the wayside automatically.

It isn't that simple, actually. Long before output hits its goals, Europe may find that it cannot sell the goods it makes for export. Limited markets may blight the Marshall Plan's chances of success just as certainly as limited production.

It is not possible to make clear-cut measurements of markets as it is of men and machines. Markets are fuzzy on the edges and continuously in flux. The architects of the Marshall Plan don't even do what might be done to pin them down. They merely say that the goal is to have the 16 nations export enough to balance imports by 1952. To accomplish this, they explain export volume must be far larger than prewar. Without presenting a doctor's thesis to give the reasons in detail, they are in brief: Populations are larger; foreign investments are reduced; prices of imports are up sharply; and many other similar basic economic factors are changed.

BY DIGGING into specific export goals, however, both by countries and by commodities, it is possible to get a fairly clear-cut idea of what Marshall Plan export goals must be. When you do this, it is impossible to escape this conclusion: *Under present world conditions the goals set are unattainable because the markets to take the goods are not there.*

Let's take a look at the export goals by countries. Britain has announced that it must sell 75% more goods than prewar to balance its trade books. France's Monnet Plan calls for an 87% increase in export volume. Western Germany must sell more than prewar; truncated "Trizonia," with the Eastern German breadbasket gone, will need to import more food than did all prewar Germany to meet prewar food standards. And so it goes. Sweden, Switzerland, the Low Countries, Italy, and all the others must boost exports.

By commodities, export goals are even more impressive. Britain relies on metals and products to furnish larger sales. They are to rise over 200% above prewar. France plans a great jump in metal products to yield most of its rise in total exports. Germany specializes in metals and machinery. So they must supply its added exports.

While the Marshall Plan calls for greatly expanded European exports, particularly of heavy goods, we in the

U. S. are also shooting for far larger than prewar exports—in the same general lines. To maintain full employment, it has been carefully estimated that our total export volume must be about three times that of the years just before World War II. Our exports of machinery and vehicles must be about five times greater.

BUT HOW CAN THE U. S. and Western Europe together export more than twice as much as prewar? More specifically, how can they both export several times as much machinery, vehicles, and metal products? The designers of the Marshall Plan ducked that question. The answer is that they cannot.

Certainly Western Europe and the U. S. cannot exchange all those industrial products between themselves. They will be trying to sell surplus of the same sorts—tools, trucks, turbines. And together they took only one-third of the world's exports of manufactures before the war.

Then what of the rest of the world? It took two-thirds of all prewar exports of manufactures—and, in two-way trade, supplied two-thirds of all imports of food and raw materials. Asia, the biggest customer, took 18%, Latin America 14%, Africa 13%, and Eastern Europe 11%. Such other countries as Russia, Japan, and Canada altogether bought 9% of all manufactures. Obviously if exports, particularly of metal products, are to be expanded, they must go to these areas.

But can they take more than twice as much as prewar? Latin America and some parts of thinly populated Africa are buying more, to be sure. Exports to Eastern Europe, however, are greatly reduced and they are likely to stay low. Even the Paris report assumes only a partial trade revival over or through the Iron Curtain. Obviously these areas cannot provide the needed new markets.

WHAT ABOUT ASIA? It was the largest single "taker" of prewar exports of manufactures. And, with its more than a billion people, it alone has the potential to absorb enormously expanded exports. It can supply, too, much of the food and raw materials needed by Europe and America—as it did before the war.

Today, however, much of Asia is demoralized, torn by war, and desperately impoverished. Its foreign trade is only a fraction of what it was just before World War II. Yet—to meet U. S. and Marshall Plan goals with other markets what they are—Asia would have to buy three or four times the volume of manufactures that it took before the war.

If the Asiatic market can be revived and expanded, export goals of the Marshall Plan magnitude can be reached. But that is a long-range undertaking. As matters stand today, the Marshall Plan export goals are unattainable. In that crucial dimension, the plan won't work.

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